

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

JOSEPH SCOTT STAM, JON HAROLD BECHTEL
and JOHN KING ROBERTS
Junior Party
(Patent No. 5,837,994)

v.

KENNETH SCHOFIELD, MARK L. LARSON
and KEITH J. VADAS
Senior Party
(Application 09/441,341)

Patent Interference No. 105,325
(Technology Center 2800)

Before MARTIN, LEE and MEDLEY, Administrative Patent Judge.

LEE, Administrative Patent Judge.

Decision – Motions – Bd. R. 125(a)

Introduction

1. This interference was declared on August 5, 2005. (Paper 1)
2. Stam is involved based on its reexamined patent 5,837,994, filed April 2, 1997.
(Paper 1)
3. Schofield is involved based on its application 09/441,341, filed November 16,
1999. (Paper 1)
4. The interference was declared with three counts. Count 1 is Stam's claim 36 or
Schofield's claim 89. Count 2 is Stam's claim 44 or Schofield's claim 94. Count 3 is Stam's
claim 50 or Schofield's claim 99. (Paper 1)

5. For all three counts, Schofield has been accorded the benefit of the earlier filing dates of application 09/135,565, filed August 17, 1998, application 08/621,863, filed March 25, 1996, and application 08/023,918, filed February 26, 1993. (Paper 1)

6. For Stam, the real party in interest is Gentex Corporation. (Paper 11)

7. For Schofield, the real party in interest is Donnelly Corporation. (Paper 6)

8. Stam filed substantive motions 1-10.

9. Schofield filed substantive motions 1-5.

10. Oral argument on motions was held on May 17, 2006.

11. The parties' claims which correspond to Count 1, according to the Notice Declaring Interference (Paper 1), are Stam's claims 36-40 (amended during reexamination) and Schofield's claims 89-93.

12. The parties' claims which correspond to Count 2, according to the Notice Declaring Interference (Paper 1), are Stam's claims 44-49 and Schofield's claims 94-98.

13. The parties' claims which correspond to Count 3, according to the Notice Declaring Interference (Paper 1), are Stam's claim 50 and Schofield's claim 99.

Discussion

Per 37 CFR § 41.121(b), a party filing the motion has the burden of proof to establish that it is entitled to the requested relief. The same standard applies to the motions of either party.

A. Stam's Motion 1 asserting no interference-in-fact between the parties for the subject matter of Count 1

In motion 1, Stam asserts that for the subject matter of Count 1, there is no interference-in-fact between the parties. The applicable rule is 37 CFR § 41.203(a) which states: "An interference exists if the subject matter of a claim of one party would, if prior art, have anticipated or rendered obvious the subject matter of a claim of the opposing party and vice versa." The pertinent claims for comparison are Stam's claims 36-40 and Schofield's claims 89-

93, which correspond to Count 1. Each of Stam's claims 37-40 depends directly or indirectly from independent claim 36, and each of Schofield's claims 90-93 depends directly or indirectly from independent claim 89. Through its Motion I, Stam attempts to establish that the subject matter of Stam's claims 36-40 are neither anticipated nor rendered obvious by any one of Schofield's claims 89-93.

Schofield's claim 89 reads as follows:

89. A control system for automatically controlling the state of the headlamps of a controlled vehicle, the control system comprising:

an optical system for imaging external sources of light within a predetermined field of view, the optical system including at least two photo sensor arrays and at least two lenses, each of said at least two lenses being configured to image said predetermined field of view onto a respective one of said at least two photo sensor arrays; and

an image processing system for processing images from said optical system and providing a control signal for controlling the headlamps as a function of the relative output of the pixels imaging said external sources of light.

Schofield's claim 89 requires at least two photo sensor arrays and at least two lenses, where each of the at least two lenses is configured to image the predetermined field of view onto a respective one of the at least two photo sensor arrays. Claim 36 of Stam, on the other hand, recites only "an image array sensor" and "two or more lenses configured to image said predetermined field of view onto two or more corresponding portions of said array."

Stam's claim 36 is reproduced below:

36. A control system for automatically controlling the state of the head lamps of a controlled vehicle, the control system comprising:

an optical system for imaging external sources of light within a predetermined field of view, the optical system including an image array sensor and two or more lenses configured to image said predetermined field of view onto two or more corresponding portions of said array; and

an image processing system for processing images from said optical system and providing a control signal for controlling the head lamps as a function of the relative output of the pixels imaging said external sources of light.

1 On a strictly technical basis, the reference in Stam's claim 36 to "portions of said array"
2 lacks antecedent basis, since what was earlier defined in the claim is "an image array sensor" and
3 not "an image array." However, a review of Stam's specification reveals that Stam in more than
4 one instance uses the term "image array sensor" and the term "array" interchangeably (column 3,
5 lines 15-20 and column 5, lines 12-14) and has not set forth any embodiment of an image array
6 sensor which is comprised of more than one array. Therefore, in light of Stam's own
7 specification, we construe "image array sensor" in claim 36 as a sensor having an image array
8 and regard the reference to "said array" as referring back to that one array of the image sensor.
9 Evidently, party Stam has done the same in its Motion 1. (Stam Motion 1 on page 6)

10 Stam has properly determined a difference between Stam's claim 36 and Schofield's
11 claim 89. Specifically, whereas Schofield's claim 89 requires two lenses, two photo sensor
12 arrays, and the imaging from each lens onto a respective one of the two photo sensor arrays,
13 Stam's claim 36 requires two lenses, one image array, and the imaging from each lens onto
14 respective one of the two corresponding portions of the same image array. Accordingly, because
15 Schofield's claims 90-93 have all the limitations of Schofield's claim 89 and Stam's claims 37-
16 40 have all the limitations of Stam's claim 36, none of the subject matter of any one of Stam's
17 claims 36-40 is anticipated by the subject matter of any one of Schofield's claims 89-93.

18 Stam further asserts that because of the noted difference between Stam's claim 36 and
19 Schofield's claim 89, none of the subject matter of any one of Stam's claims 36-40 would have
20 been obvious over the subject matter of any one of Schofield's claims 89-93. Stam's argument is
21 as follows (Motion at page 9, lines 6-20):

22 Thus, in order for Schofield claim 89 to render Stam claim 36 obvious, there must
23 be some suggestion or motivation, either in claim 89 or in the knowledge
24 generally available to one of ordinary skill in the art, that would provide
25 motivation to modify the Two-Array system of Schofield claim 89 to arrive at the
26 Dual-Image, Single-Array system of Stam claim 36.
27

1 However, there is no teaching in the Schofield application or claims that
2 would lead one of ordinary skill to modify the Schofield Two-Array system to
3 arrive at the Stam Dual-Image, Single-Array system. *Material Facts 18, 19.*
4 Indeed, every variation shown or described in the Schofield application has at
5 least as many arrays as lenses, and in the case of the single-lens, three array
6 embodiment, *more* arrays than lenses. *Id.* No advantages of a system that uses
7 *fewer* arrays than lenses are described in the Schofield application. *Id.* There is
8 thus clearly no motivation provided in the Schofield application for one of
9 ordinary skill in the art to modify the Two-Array system of the Schofield claims to
10 arrive at the Dual-Image, Single-Array system of the Stam claims. *Id.* For these
11 reasons, Schofield claim 89 does not render Stam claim 36 obvious.

12
13 Schofield claims 90-93 share every limitation of claim 89 from which they
14 depend, either directly or indirectly. *Material Facts 4, 5.* Thus Schofield claims
15 90-93 all define [a] Two-Array system. Stam claims 37-40 share every limitation
16 of claim 36 from which they depend, either directly or indirectly. *Material Fact 8,*
17 9. Thus Stam claims 37-40 all define a Dual-Image, Single-Array system. For the
18 reasons discussed above with respect to Schofield claim 89 and Stam claim 36,
19 the two-array systems recited in Schofield claims 90-93 do not render the single-
20 array systems of Stam claims 37-40 obvious. (Emphasis in original.)

21
22 The above-quoted argument, even if assumed to have been established as true, is
23 inadequate to show nonobviousness of the subject matter of Stam's claims 36-40 over
24 Schofield's claims 89-93. Stam limits its motivation and suggestion analysis to within the four
25 corners of the Schofield application, i.e., specification and claims. Assuming that nowhere in the
26 Schofield application is there any motivation or suggestion to use two lenses for imaging onto
27 respective corresponding portions of the same array, Stam still has presented nothing with regard
28 to (1) what other prior art available to one with ordinary skill in the art, at least those known to
29 Stam's inventors and/or real party in interest, would teach regarding the same, and (2) what one
30 with ordinary skill in the art would have known about interchangeability between multiple arrays
31 and different portions of the same array. Stam does state (Material Fact 17) that a person of
32 ordinary skill in the art would have been a person with a Bachelor's degree in electrical
33 engineering or physics, and three years of experience in optics and image processing technology,
34 or a person with a Master's degree in electrical engineering or physics. However, such a
35 definition is not helpful with regard to what such a person would or would not have known about

1 the significance of a distinction between imaging onto multiple arrays and imaging onto different
2 portions of the same array, if any, and why.

3 As the party movant asserting no interference-in-fact in an interference, Stam has an
4 affirmative burden to establish nonobviousness. That is far different from rebutting an
5 obviousness rejection during ex parte examination by an examiner who has the burden of
6 showing obviousness. The very first sentence in the above-quoted text reveals that Stam has
7 engaged in the latter, which is inappropriate in the circumstances of Stam's Motion 1.

8 As was stated in Pechiney Emballage Flexible Europe v. Cryovac Inc., 73 USPQ2d 1571,
9 1573 (Bd. Pat. App. & Int. 2004)(non-precedential), in a motion asserting no interference-in-
10 fact, "the moving party bears the burden and must establish a 'negative.'" As was further stated
11 in Pechiney, id.:

12 Therefore, the moving party must not only identify the differences between its
13 claims and "primary references" of its opponent's claims, but also show that these
14 differences do not render the opponent's claimed subject matter as a whole
15 obvious in light of the scope and content of the prior art and the level of ordinary
16 skill in the art.

17
18 By discussing only the disclosure of Schofield's involved application, Stam has failed to
19 meaningfully establish the scope and content of the prior art and the level of ordinary skill in the
20 art, both of which are fundamental underlying factual issues in any analysis involving
21 obviousness. See Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966). While
22 Stam's burden is a negative one and may be difficult to demonstrate in an absolute sense,
23 a specific accounting of the entire world of applicable prior art including those not known to
24 Stam is not required. But there must be credible evidence, as much as Stam may be reasonably
25 expected to provide concerning what one with ordinary skill in the art would know about the
26 missing features, sufficient to persuade us of the alleged nonobviousness.

27 A movant such as Stam must provide some evidentiary basis for determining the
28 nonobviousness of the invention in light of the scope and content of the prior art and the level of

1 ordinary skill in the art as are known to the movant, such as testimony from an inventor that he or
2 she is unaware of any knowledge in the art that multiple arrays are interchangeable with multiple
3 parts of a single array or that two lenses have been used to focus separate images onto different
4 corresponding portions of the same array. See Pechiney, 73 USPQ2d at 1574. Stam's motion
5 does not refer to any testimony which discusses the full scope and content of the prior art, at least
6 that which is known to Stam's inventors or real party in interest, or the level of ordinary skill in
7 the art with particular respect to the use of two lenses for imaging onto respective corresponding
8 portions of the same array.

9 Stam further notes that the parent and grandparent applications of Schofield's involved
10 application share a common specification with Schofield's involved application and that both the
11 parent and grandparent applications issued as U.S. patents. Stam also notes that those two
12 patents were cited during reexamination of Stam's involved patent and the examiner handling the
13 reexamination acknowledged consideration of those patents. Stam points out (Material Fact 16)
14 that "[t]he *ex parte* Examiner confirmed the patentability of all of the Stam claims over the
15 considered prior art, which included the '094 and '023 patents [those issuing from Schofield's
16 parent and grandparent applications] (Exhibit 2009)" (Emphasis in original). On that basis, Stam
17 argues that Stam's involved claims are patentable over Schofield's involved claims.

18 Stam's argument is without merit and rejected, for a plethora of reasons. First, what an
19 examiner concluded during *ex parte* reexamination of Stam's involved patent prior to the
20 declaration of this interference does not trump or override a contrary conclusion that follows
21 from declaration of this interference. Secondly, the examiner who examined Schofield's
22 involved application and initiated the proposed interference for declaration by the Board
23 evidently is of the view that both Stam and Schofield are claiming the same patentable invention
24 without patentable distinction. Third, Stam's knowledge of pertinent prior art might well be
25 broader or more extensive than the prior art ascertained or gathered by the examiner who handled

1 reexamination of Stam's involved patent. Fourth, the applicable burdens of proof are located on
2 opposite sides and of different types. During reexamination of Stam's involved patent, unless the
3 examiner comes up with applicable prior art supporting a conclusion of obviousness, he or she
4 must allow the claims. Here, if Stam comes up with insufficient evidence of nonobviousness, it
5 has not overcome the presumption of interfering claims between the parties. Fifth, the examiner
6 might simply have been wrong given the prior art cited of record, or just not have uncovered the
7 most applicable prior art.

8 For all of the foregoing reasons, we are unpersuaded by Stam that none of Stam's claims
9 36-40 would have been obvious over any one of Schofield's claims 89-93. Stam's Motion 1 has
10 not made out even a prima facie case that there is no interference-in-fact between the parties.
11 Accordingly, it is not necessary to consider Schofield's opposition or Stam's reply. Stam has not
12 satisfied its burden for demonstrating entitlement to the relief sought, that there is no
13 interference-in-fact between the claims of Stam and the claims of Schofield.

14 Stam's Motion 1 is denied.

15 B. Stam's Motion 2 asserting no interference-in-fact
16 between the parties for the subject matter of Count 2
17

18 In Motion 2, Stam asserts that for the subject matter of Count 2, there is no interference-
19 in-fact between the parties. The applicable rule is 37 CFR § 41.203(a), as already noted above in
20 connection with Stam's Motion 1. For this motion, the claims for comparison are Stam's claims
21 44-49 and Schofield's claims 94-98, which correspond to Count 2. Each of Stam's claims 45-49
22 depends directly or indirectly from independent claim 44. Schofield's claims 94 and 95 are
23 independent claims, but Schofield's claim 95 includes all of the features of Schofield's claim 94.
24 Schofield's claim 96 depends from claim 95; Schofield's claim 97 depends from claim 96;
25 Schofield's claim 98 depends from claim 94. Stam asserts that Stam's claims 44-49 are neither
26 anticipated nor rendered obvious by any one of Schofield's claims 94-98.

Stam's claim 44 and Schofield's claims 94 are reproduced below:

[Stam] 44. A control system for automatically controlling the high beam state of the head lamps of a controlled vehicle comprising:

an optical system for imaging external sources of light within a predetermined field of view onto an image sensor containing a plurality of pixels, said optical system configured to selectively transmit two or more predetermined spectral bands of light, and said optical system configured to image light within each predetermined spectral band onto different predetermined blocks within said image sensor; and

an image processing system for processing images from said optical system and providing a control signal for controlling the high beam state of the head lamps as a function of the output of one or more pixels within each of said predetermined blocks, relative to the output of other pixels within the same block.

[Schofield] 94. A control system for automatically controlling the high beam state of the headlamps of a controlled vehicle comprising:

an optical system for imaging external sources of light within a predetermined field of view onto an image sensor containing a plurality of pixels, said optical system configured to selectively transmit one or more predetermined spectral bands of light, and said optical system configured to image light within each predetermined spectral band onto particular portions of said image sensor; and

an image processing system for processing images from said optical system and providing a control signal for controlling the high beam state of the headlamps as a function of the output of one or more pixels within one of said portions relative to the output of other pixels within the same portion.

Stam correctly identifies that while Stam's claim 44 recites imaging light within each predetermined spectral band onto "different predetermined blocks" within the image sensor, Schofield's claim 94 recites imaging light within each predetermined spectral band onto "particular portions" of the image sensor. The term "predetermined blocks" has no special definition within the specification of Stam's involved patent, and the term "particular portions" has no special definition within the specification of Schofield's involved application. These terms are properly construed according to their ordinary usage and to the broadest reasonable interpretation consistent with the specification. Stam further correctly identifies that while Stam's claim 44 recites that the optical system is configured to selectively transmit two or more

1 predetermined spectral bands of light, Schofield's claim 94 recites that the optical system is
2 configured to selectively transmit one or more predetermined spectral bands of light.

3 According to Stam, "predetermined blocks" is not the same as "particular portions."
4 However, even assuming that "blocks" means the same as "particular portions" and also that
5 Schofield's particular portions are "predetermined" like Stam's blocks, Stam's claims 44-49 still
6 differ from Schofield's claims 94-98 because light from each of Stam's predetermined spectral
7 bands must be imaged onto different predetermined blocks whereas light from each of
8 Schofield's predetermined spectral bands is not subject to that limitation. Also, the scope of
9 "one or more predetermined spectral bands" as is recited in Schofield's claim 94 is broader than
10 the scope of "two or more predetermined spectral bands" as is recited in Stam's claim 44.

11 Stam correctly identifies another difference between Stam's claims and Schofield's
12 claims. Specifically, Stam's claim 44 recites that the control signal is provided as a function of
13 the output of one or more pixels within "each of" the predetermined blocks relative to the output
14 of other pixels within the same block, while Schofield's claim 94 recites that the control signal is
15 provided as a function of the output of one or more pixels within "one of" the particular portions
16 relative to the output of other pixels within the same portion.

17 Based on the above-noted differences, Schofield's claim 94 does not anticipate any one of
18 Stam's claims 44-49. Neither does any one of Schofield's claims 95-99, since none makes up for
19 the deficiency of claim 94 as far as missing features are concerned with respect to Stam's claims.

20 Also based on such differences, including Stam's alleged difference between Schofield's
21 "particular portions" and Stam's "predetermined blocks," Stam takes the position that none of
22 Stam's claims 44-49 would have been obvious over any one of Schofield's claims 94-98. The
23 entirety of Stam's nonobviousness argument is reproduced below, a first portion appearing on
24 page 12 of the motion and a second portion appearing on page 24 of the motion:

1 In order to render a party's claims obvious, a prior art reference (in this
2 case, an opponent's claim) must meet three basic criteria. First, the opponent's
3 claim must teach or suggest all the limitations of the party's claim. Second, where
4 the opponent's claim does not explicitly include every limitation of the party's
5 claim, there must be some suggestion or motivation, either the opponent's claim
6 itself or in the knowledge generally available to one of ordinary skill in the art, to
7 make the necessary modification(s) to the opponent's claim. And finally, there
8 must be a reasonable expectation of success. See, In re Vaeck, 947 F.2d 488, 20
9 USPQ2d 1438 (Fed. Cir. 1991). [Motion 1, p.12, lines 12-19]

10
11 One of ordinary skill in the art would not have been motivated to make the
12 modifications to the system of Schofield claim 94 that would be necessary to
13 arrive at the system of Stam claim 44. *Material Fact 35*. (Emphasis in original.)
14 [Motion 1, p.23, lines 12-14]

15
16 Material Fact 35 in Stam's motion states: "A person of ordinary skill in the art, at the time the
17 Schofield application was filed, would have been a person with a Bachelor's degree in electrical
18 engineering or physics, and three years of experience in optics and imaging technology, or a
19 person with a Master's degree in electrical engineering or physics. *Pain Declaration, Exhibit*
20 *2018, para. 3*." (Emphasis in original.)

21 Assuming that the formal education and years of work experience for one of ordinary
22 skill are precisely as Stam asserts, they do not reveal something specific or meaningful about
23 what such a person would know about imaging predetermined spectral bands of light onto
24 different predetermined blocks within an image sensor, or about comparing one or more pixels
25 within each predetermined block with other pixels within the same block to provide a control
26 function. The differences identified by Stam between Stam's claim 44 and Schofield's claim 94
27 may be trivial or insignificant, or they may be unexpected or substantial, from the perspective of
28 one with ordinary skill in the art. In that regard, Stam's motion does not make any clarification
29 or offer any meaningful explanation. It is noted that Stam's Material Fact 36, not cited in Stam's
30 argument, states: "In view of the four differences between the system of Schofield claim 94 and
31 the system of Stam claim 44 discussed above, one of ordinary skill in the art would not be
32 motivated to make the modification to the system of Schofield claim 94 that would be necessary

1 to arrive at the system of Stam claim 44. *Pain Declaration, Exhibit 2018, para. 23.*” The
2 statement is mere conclusory, as is the supporting testimony in Paragraph No. 23 of the
3 declaration of Dr. Bedabrata Pain (Exhibit 2018) which states:

4 In my opinion, there is no disclosure in the Schofield application that would
5 motivate a person of ordinary skill in the art to modify the aspects of the Schofield
6 system discussed above in order to arrive at the Stam system.
7

8 Stam’s focus on only the motivation and suggestion stemming from the specification of
9 Schofield’s involved application is also misplaced. What one with ordinary skill in the art would
10 know is not limited to that contained in Schofield’s disclosure. For that matter, it is not
11 altogether clear and certainly not discussed by Stam, why Schofield’s disclosure even constitutes
12 prior art. It is the involved claims of Schofield which constitute the primary prior art reference in
13 an interference-in-fact analysis, and not Schofield’s specification. By discussing only that
14 motivation or suggestion stemming from the disclosure of Schofield’s involved application, Stam
15 has failed to meaningfully establish the scope and content of the prior art. By only defining the
16 formal education and years of work experience of one with ordinary skill in the art, Stam has
17 failed to meaningfully establish the level of skill in the art with specific regard to the particular
18 asserted differences between Stam’s claims and Schofield’s claims. Stam bears the burden of
19 proof and must itself establish the scope and content of the prior art as well as the level of skill in
20 the art with regard to the obviousness issue. See, Pechiney, 73 USPQ2d at 1573.

21 Stam’s motion reflects a rebuttal of an examiner’s rejection of Stams’s claims over
22 Schofield’s claims and in the absence of any cited prior art. The approach is flawed. There is no
23 examiner’s rejection here. An interference between the party’s claims is presumed. It is Stam’s
24 burden to establish lack of either anticipation or obviousness.

25 For the foregoing reasons, Stam’s motion fails to set forth a prima facie case of
26 entitlement to relief. It is not necessary to consider Schofield’s opposition or Stam’s reply.

1 Stam's Motion 2 is **denied**.

2 C. Stam's Motion 3 asserting that Schofield's claims 94-98 are unpatentable
3 for lack of written description under 35 U.S.C. § 112, 1st paragraph
4

5 With regard to Schofield's independent claim 94, Stam discusses only a single
6 embodiment within the Schofield specification, one which Schofield cited to for support when
7 amending an application claim to overcome a rejection for lack of written description under 35
8 U.S.C. § 112, first paragraph. Such limited analysis of Schofield's disclosure is inappropriate
9 and also inadequate to demonstrate that Schofield's specification in its entirety is without written
10 description for the subject matter of Schofield's claim 94, where Stam as the party movant bears
11 the burden of proof. During examination, when amending its claim Schofield was under no
12 obligation to address all embodiments within its specification to demonstrate support under
13 35 U.S.C. § 112, first paragraph. Schofield was under no obligation to analyze or discuss even a
14 single embodiment within its disclosure. Schofield was entitled to amend its claims, without
15 accompanying comments or remarks. The burden was always on the examiner to demonstrate
16 that Schofield's claims, as amended, were unpatentable for whatever reason, including
17 unpatentability for lack of written description under 35 U.S.C. § 112, first paragraph. The
18 examiner could not have based a proper rejection for lack of written description on only the
19 contents of a single embodiment while ignoring other embodiments in the specification.

20 Likewise, Stam could not reduce and limit the disclosure of Schofield's specification to a single
21 embodiment. The approach taken by Stam is improper and Stam has not met its burden of proof.

22 Furthermore, Stam's motion is unconvincing for another reason, even if it were
23 reasonable for Stam to limit Schofield's disclosure to a single embodiment. Stam's argument on
24 why it considers claim 94 of Schofield to be without written description in the specification is
25 misplaced. The only feature placed at issue by Stam regarding Schofield's claim 94 concerns the
26 "particular portions" recitation. Specifically, Schofield's claim 94, in pertinent part, recites:

1 said optical system configured to selectively transmit two or more predetermined
2 spectral bands of light, and said optical system configured to image light within
3 each predetermined spectral band onto particular portions of said image sensor.
4

5 Rather than explaining why the “particular portions” recitation is not described in
6 Schofield’s specification, Stam finds a meaning for “particular portions” within the context of
7 Schofield’s specification and then states that that meaning does not satisfy the meaning of at least
8 three requirements of the term “different predetermined blocks.” The term “different
9 predetermined blocks” is not found anywhere in Schofield’s claim 94 or any other Schofield
10 claim corresponding to Count 2. It is a term recited in Stam’s claim 44. There is no requirement
11 in the patent statute, and Stam has cited none, that Schofield’s specification must provide a
12 written description for the subject matter of Stam’s claims. Even if true, it is of no moment that
13 Schofield’s specification does not have written description for “different predetermined blocks”
14 as is recited in Stam’s claim 44.

15 On page 12 of the motion, it is stated:

16 In Stam Motion 2 for Judgment that there is no interference-in-fact
17 between the Stam and Schofield claims corresponding to Count 2, Stam contends
18 that the term “particular portions” as recited in Schofield claims 94-98 has a
19 different meaning from the term “different predetermined blocks” as recited in
20 Stam claims 44-49. If the Board decides that a “particular portion” means
21 something other than a “different predetermined block” then Stam Motion 2 for
22 no interference-in-fact should be granted, and the present motion will be moot.
23 However, if the Board interprets a “particular portion” to have the same meaning
24 as a “different predetermined block,” then Stam contends that the Schofield
25 application in interference does not provide adequate written description for the
26 limitation “particular portion.”
27

28 Motion 2 has been decided without need to determine whether “particular portions” in
29 Schofield’s claim 94 has the same meaning as “different predetermined blocks” in Stam’s claim
30 44. Our approach to an issue is not governed by a blue print or recipe provided by a party.

31 We are not persuaded by Stam that Schofield’s claim 94 is without written description in
32 the specification. Stam has not satisfied its burden of proof for establishing an entitlement to

1 relief and no prima facie case has been set forth. It is not necessary to consider Schofield's
2 opposition or Stam's reply.

3 As for the assertion that Schofield's claims 95-98 are without written description in the
4 specification, it is a question we need not reach in this interference because Stam already has
5 failed to demonstrate that Schofield's claim 94 is without written description in the specification.
6 reaching the issue with regard to Schofield's claims 95-98 would not in any way help to advance
7 or simply priority determination in this interference.

8 For the foregoing reasons, Stam's Motion 3 is **denied**, insofar as it is directed to
9 Schofield's claim 94, and **dismissed**, insofar as it is directed to Schofield's claims 95-98.

10 D. Stam's Motion 4 asserting Schofield's claim 99 is unpatentable
11 for lack of written description under 35 U.S.C. § 112, 1st paragraph
12

13 Schofield's claim 99 is the only Schofield claim corresponding to Count 3. Stam asserts
14 that this claim is unpatentable under 35 U.S.C. § 112, first paragraph, for lack of written
15 description in the Schofield specification (Exhibit 2012). Claim 99 reads as follows:

16 99. A control system for automatically controlling the high beam state
17 of the headlamps of a controlled vehicle comprising:

18 an optical system for imaging external sources of light within a
19 predetermined field of view onto an image arraysensor, said optical system
20 configured to distinguish light sources which emit red light from those which emit
21 white light, **said optical system further configured to not image light in the**
22 **infrared region of the spectrum emitted by said light sources, thereby**
23 **increasing the distinction between said red-emitting sources and said white -**
24 **emitting sources; and**
25

26 an image processing system for processing images from said optical
27 system and providing a control signal for controlling the high beam state of the
28 head lamps. (Emphasis added.)
29

30 The sole issue in dispute is whether the claim feature of "said optical system further configured
31 to not image light in the infrared region of the spectrum emitted by said light sources, thereby
32 increasing the distinction between said red-emitting sources and said white-emitting sources."
33

1 Further still, there is no dispute with respect to the thereby clause, provided that the Schofield
2 specification indeed does describe not imaging light in the infrared region.

3 Stam submitted the testimony of a technical witness, Bedabrata Pain, Ph.D., whose status
4 as one with at least ordinary skill in the art, by education and work experience, is not challenged
5 by Schofield. Stam's motion cites to the following testimony of Dr. Pain (Exhibit 2018 ¶ 24):

6 24. From my review of the Schofield application, I do not find any
7 information that would lead one of ordinary skill in the art to understand that the
8 Schofield inventors contemplated filtering out infrared light. The only discussion
9 of infrared light that I can find in the Schofield application mentions detecting
10 infrared light, not blocking it. There is certainly no discussion of any advantages
11 to be gained by filtering out infrared light.

12
13 In the next paragraph of his declaration, ¶ 25, Dr. Pain refers to Figures 8a, 8b, and 8c of the
14 Schofield specification, which were relied upon by Schofield during examination to rebut a
15 rejection by the examiner of claim 99 as being without written description in the specification.
16 According to Dr. Pain, those figures are incomprehensible for various reasons. Specifically, it is
17 stated that while the y-axis is labeled "Relative Values" and runs from "zero to 1.8," he found no
18 explanation in the Schofield application of what these "relative values" are, or what they are
19 relative to, or of the meaning of the values on the scale. It is also stated in ¶ 26 of his declaration
20 that the shape of the spectral curves shown in Fig. 8a cannot be realized in practice. As
21 examples, Dr. Pain points out that the red and green curves cut off abruptly at the short
22 wavelength region.

23 Figure 8a of the Schofield specification is reproduced below:
24
25
26
27

7

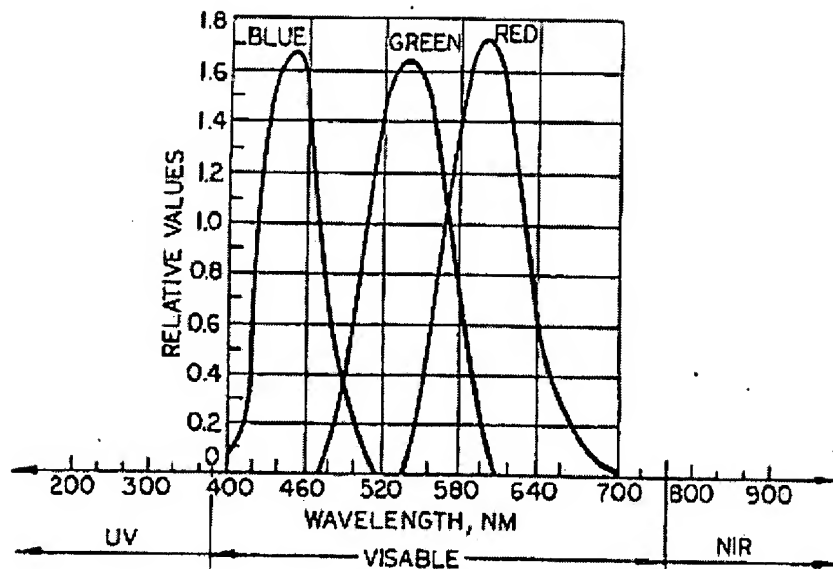


FIG. 8a

1 We find that most of what Dr. Pain has stated in support of Stam's Motion 4 is misplaced
2 and has little relevance, with regard to what the relative values are or mean on the y-axis, and
3 how abrupt are the illustrated cutoffs at the short wavelength end of the red and green curves.
4 A figure may not be read in a vacuum, with unchecked imagination. The description introducing
5 and making reference to the figures provides a necessary context for reading the illustration.
6 Also, the issue here is whether there is description for not imaging infrared light. Stam has not
7 shown that it necessarily involves knowing everything that can be reasonably asked of the figure.
8 Stam does not assert that one with ordinary skill in the art would not know that the y-axis
9 represents a measure of intensity of the imaged light. Whether that measure is in absolute or
10 relative value with respect to some base reference has not been demonstrated by Stam as
11 important to the issue at hand. Stam also has not shown that the curves in Figure 8a represent
12 actual parameter values that must be accomplished literally. In any event, Stam has not filed a
13 motion alleging unpatentability for lack of an enabling disclosure in the specification. Even
14 assuming that the lower end portion of the red and green curves are too abrupt to be achieved, it
15 does not provide meaningful support for Stam's assertion of lack of written description for the
16 subject matter of Schofield's claim 99. The allegation that the illustrated curve end portions are
17 impossible to be achieved is a red herring and not important for the written description question.
18 Also, Stam's argument that most of the infrared range is not shown in the graphs of Schofield's
19 Figure 8 is of little or no significance, since the x-axis of the graphs of Figure 8 are marked with
20 an arrow extending toward the right, the direction of increasing wavelength covering all of the
21 infrared range. The clear implication of that depiction is that the higher wavelengths are likewise
22 covered, albeit with no data entries therefor.

1 On page 10 of the Schofield specification (Exhibit 2012), in lines 23-25, it is stated:

2 In the illustrated embodiment, spectral filtering is carried out in a manner
3 which exposes each photosensing element in the photosensor array to a band of
4 light falling within one of the primary ranges of the visible spectrum, namely red,
5 green, or blue as illustrated in Fig. 8a.
6

7 According to that description, Figure 8a illustrates the results of spectral filtering, whereby each
8 photosensing element is exposed to a band of light falling within the red, green, or blue primary
9 ranges of the visible spectrum. Nothing is said in that description about wavelengths outside of
10 the visible spectrum and nothing is shown in Figure 8a for wavelengths of light other than those
11 in the visible spectrum. Even the background grid in Figure 8a for data entry is provided only for
12 the visible spectrum and does not extend into the ultraviolet or the infrared range and beyond.
13 Figure 8a shows three bell-shaped curves, all within the visible spectrum, marked blue, green,
14 and red, corresponding to the primary ranges referred to in the above-quoted text. The areas
15 outside of the visible range are left completely blank, with no data and even no grid for entering
16 data.

17 The description inclusive of text and drawing reveals what light is imaged onto the
18 photosensing elements and not necessarily what is not. The disclosure is sufficiently broad to be
19 consistent with two readings: (1) that all light outside of the visible spectrum, extending in both
20 directions outward on the continuous spectrum, is filtered out and blocked from the photosensing
21 elements; and (2) whether or not light from outside of the visible wavelength range is imaged is
22 not of concern and is not addressed by the embodiment of Figure 8a. Although the lack of any
23 grid for entering data outside of the visible range suggests that it is the second, the first also
24 might have been what the inventors had in mind. What is certain, however, is that one should
25 not equate or confuse the absence of data with data that affirmatively indicate the negative.

26 Relying on the testimony of Dr. Pain, Stam asserts that there is no information in the
27 Schofield application that would lead one of ordinary skill in the art to understand that the

1 Schofield inventors contemplated filtering out infrared light. Dr. Pain's testimony in that regard
2 finds support in the above-quoted written description and Figure 8a.

3 The brief description of the drawings, insofar as it is directed to Figures 8a-8c, also
4 supports Stam's position. It states (Exhibit 2012, page 4, line 5):

5 Figs. 8a-8c are spectral charts illustrating spectral regions useful with the
6 invention.
7

8 Identification of what spectral regions are useful for the invention is not the same as designating
9 any spectral region, e.g., a non-useful region, as affirmatively filtered out or blocked, as in "not"
10 imaging infrared light. The written description issue is not an obviousness determination. What
11 might have been obvious is not necessarily described. What is not useful can simply be ignored.

12 To satisfy the written description requirement under 35 U.S.C. § 112, first paragraph, the
13 specification must convey with reasonable clarity to those skilled in the art that, as of the filing
14 date of the application, the inventor was in possession of the invention now claimed. See, e.g.,
15 Vas-Cath Inc. v. Mahurkar, 935 F.2d 1555, 1563-64, 19 USPQ2d 1111, 1117, (Fed. Cir. 1991);
16 In re Kaslow, 707 F.2d 1366, 1375, 217 USPQ 1089, 1096 (Fed. Cir. 1983). Stam is entitled to
17 read Schofield's disclosure for just what it discloses to one with ordinary skill in the art and not
18 what it would have suggested to one with ordinary skill in the art by way of obviousness.

19 Contrary to Schofield's assertion, Stam did not limit its consideration to only an
20 embodiment that definitely imaged infrared light. Stam specifically identified the embodiment of
21 Schofield's Figure 8a and quoted Schofield's specification with respect thereto (Stam Material
22 Facts 7-9).

23 Despite its many misplaced argument, Stam's Motion 4 still makes out a prima facie case
24 that Schofield's claim 99 is without written description in the specification. That prima facie
25 case has not been adequately rebutted.

1 Relying on the testimony of Dr. Niall Lynam (Exhibit 1022, ¶¶ 43-44), Schofield argues
2 that Figure 8a of the Schofield specification shows spectral filtering that images light within the
3 visible spectrum and blocks or substantially blocks light in the non-visible or infrared and
4 ultraviolet spectrums. Paragraphs 43 and 44 of Dr. Lynam's testimony are reproduced below,
5 excluding an embedded copy of Figure 8a:

6 43. The '341 application clearly discloses blocking of infrared light, and
7 one of ordinary skill in the art would recognize from the specification and figures
8 of the '341 application that several embodiments are disclosed which function in
9 this manner. For example, the specification of the '341 application describes
10 Figure 8a as a spectral filtering arrangement or approach that exposes each
11 photosensing element in the photosensing array to a band of light falling within
12 one of the primary ranges of the visible spectrum. Figure 8a of the '341
13 application (reproduced to the right) shows such a spectral filtering approach,
14 which images light within different spectral bands (e.g. red, green and blue bands)
15 within the visible spectrum, while blocking or attenuating light in the non-visible
16 or infrared spectral range. This is clearly shown in Figure 8a, where some of the
17 pixels are exposed to a "red" spectral band, which has a relative intensity value
18 that is substantially reduced and approaches zero as the wavelengths of the light
19 approach the near infrared (NIR) range or infrared range.

20
21 44. A person of ordinary skill in the art would interpret Figure 8a of the
22 '341 application as showing spectral filtering that blocks light in the infrared
23 spectrum. Referring specifically to Figure 8a, this embodiment unequivocally
24 and unambiguously shows to one of ordinary skill in the art that the red filter has
25 a cutoff in spectral transmission at or about 700 nm, and that light having
26 wavelengths greater than about 700 nm in the near infrared and, as clearly
27 indicated by the arrows depicted, further into the infrared, region of the spectrum,
28 is not transmitted and is blocked. The arrows shown in Figure 8a clearly indicate
29 that the x-axis is intended to extend beyond the values shown in Figure 8a. Dr.
30 Pain indicates that he finds "Figures 8a, 8b, and 8c to be incomprehensible." I
31 find Figures 8a, 8b and 8c to be fully comprehensible and I believe that one of
32 ordinary skill in the art would similarly find these figures to be fully
33 comprehensible.

34 We find that Dr. Lynam has read more into Figure 8a than what is necessarily there.

35
36 Dr. Lynam offers no explanation to rule out or exclude the other reasonable interpretation that the
37 illustrated embodiment is simply not concerned with wavelengths outside of the visible range.
38 The sentence on page 10, lines 23-25, of the specification (Exhibit 2012) states: "In the
39 illustrated embodiment, spectral filtering is carried out in a manner which exposes each

1 photosensing element in the photosensor array to a band of light falling within one of the primary
2 ranges of the visible spectrum, namely red, green, or blue as illustrated in Fig. 8a.” Dr. Lynam
3 does not explain why that cannot be a description which is concerned only with light in the
4 visible range. Filtering out visible light that is not in the range of one of the primary colors,
5 while not being concerned with light outside of the visible range, still constitutes spectral
6 filtering and fits the description well. Dr. Lynam also does not explain the significance of the
7 absence of data grid in areas outside of the visible range. The description from within the Brief
8 Description of the Drawings section of the specification (Exhibit 2012), on page 4, states: “Figs.
9 8a-8c are spectral charts illustrating spectral regions useful with the invention.” The ranges of
10 the bell shaped curves can be useful without regard to whether anything outside of the left-most
11 and right-most curves are affirmatively blocked. Dr. Lynam does not account for or explain
12 away the apparent breadth of the disclosure. As Stam has noted (Reply on page 9, lines 1-5),
13 Figure 8a may simply be an illustration of the three primary color ranges in the visible spectrum,
14 which are useful for the invention, and have nothing to do with any imaging or blocking in the
15 ultraviolet or infrared spectrum. Dr. Lynam does not explain why one with ordinary skill in the
16 art, in light of the corresponding description in the specification, necessarily would or must
17 understand that light from the ultraviolet and the infrared ranges are actively blocked rather than
18 simply inconsequential to this embodiment.

19 We recognize that Schofield’s specification discloses other embodiments in Figures 8b
20 and 8c whose bell shaped curves extend partially into the non-visible near-infrared range of the
21 spectrum. That only indicates that some infrared light can be useful in a difference embodiment,
22 and not that infrared light must necessarily be excluded in the embodiment of Figure 8a. The
23 evidence does not support an equivalency between being not useful and being eliminated.

1 For the foregoing reasons, we do not credit Dr. Lynam's conclusory statement that a
2 person of ordinary skill in the art would interpret Figure 8a of the '341 application as showing
3 spectral filtering that blocks light in the infrared spectrum. Consequently, Schofield has not
4 successfully rebutted the prima facie case established by Stam that Schofield's claim 99 is
5 without written description in the specification. Had Schofield been able to point to any part of
6 the specification which indicates an advantage to be achieved by blocking infrared light, or
7 reveals how it goes about blocking infrared light, Stam's prima facie case would have been
8 rebutted. But that is not the case here.

9 Stam's Motion 4 is **granted**.¹

10 E. Stam's Motion 5 attacking the benefit accorded Schofield to
11 the earlier filing date of Application 09/023,918 for Count 1
12

13 In Motion 5, Stam attacks the benefit accorded Schofield, with respect to Count 1, to the
14 earlier filing date of Application 09/023,918, filed on February 26, 1993.

15 In connection with Schofield's Motion 1, we have decided that all of Stam's claims
16 corresponding to Count 1, i.e., Stam's claims 36-40, are unpatentable. Also, because Stam has
17 no patentable claim corresponding to the Count 1, we have decided to not authorize any priority
18 motion in this case from either party with respect to the subject matter of Count 1. Therefore, the
19 initial accordance of benefit for priority purposes, for Count 1 and as indicated in the notice of
20 declaration of interference, is inconsequential.

21 Accordingly, Stam's Motion 5 is **dismissed**.

22 F. Stam's Motion 6 attacking the benefit accorded Schofield to
23 the earlier filing date of Application 09/023,918 for Count 2
24

¹ Because all of Schofield's claims corresponding to Count 3 is unpatentable under 35 U.S.C. § 112, first paragraph, Schofield lacks standing to remain in this interference with respect to a priority determination with respect to Count 3. Therefore, neither party Stam nor party Schofield is authorized to file a motion for priority with respect to Count 3.

1 In Motion 6, Stam attacks the benefit accorded Schofield, with respect to Count 2, to the
2 earlier filing date of Application 09/023,918 ("the '918 benefit application"), issued as U.S.
3 Patent No. 5,550,677, filed on February 26, 1993.

4 According benefit means the benefit application provides a proper constructive reduction
5 to practice under 35 U.S.C. § 102(g)(1), 37 CFR § 41.201, and a party is entitled to the earlier
6 filing date of the benefit application for priority purposes. The disclosure of the benefit
7 application need only support one embodiment within the scope of the count. Weil v. Fritz, 572
8 F.2d 856, 865-66 n.17, 196 USPQ 600, 608 n.17 (CCPA 1978); Hunt v. Treppschuh, 523 F.2d
9 1380, 1389, 187 USPQ 426, 429 (CCPA 1975).

10 Count 2 is defined as Schofield's claim 94 or Stam's claim 44. For its Motion 6, Stam
11 has selected Schofield's claim 94 as the count for discussion purposes. Schofield's claim 94
12 reads:

13 94. A control system for automatically controlling the high beam state of the
14 headlamps of a controlled vehicle comprising:

15 an optical system for imaging external sources of light within a
16 predetermined field of view onto an image sensor containing a plurality of pixels,
17 said optical system configured to selectively transmit one or more predetermined
18 spectral bands of light, and said optical system configured to image light within
19 each predetermined spectral band onto particular portions of said image sensor;
20 and
21

22 an image processing system for processing images from said optical
23 system and providing a control signal for controlling the high beam state of the
24 headlamps as a function of the output of one or more pixels within one of said
25 portions relative to the output of other pixels within the same portion.
26

27 Stam's main argument is expressed by the following paragraph (Motion on page 13, lines
28 3-11):
29

30 The '677 patent [the '918 benefit application] does not disclose an optical
31 system for imaging external sources of light within a predetermined field of view,
32 the optical system configured to selectively transmit one or more predetermined
33 spectral bands of light, and said optical system configured to image light within
34 each predetermined band onto particular portions of said image sensor. *Material*
35 *Fact 16*. None of the figures in the '677 patent show a filter or any other

1 mechanism for selectively transmitting a predetermined spectral band of light onto
2 the image sensor. *Material fact 17.* As a result, the '677 patent [the '918 benefit
3 application] cannot (and does not) describe an image processing system that
4 provides a headlamp control signal as a function of the output of one or more
5 pixels within one of said portions relative to the output of other pixels within the
6 same portion.
7

8 In support of the above-noted argument, Stam devotes the bulk of its motion to pointing
9 out descriptions within Schofield's involved application which were relied upon by Schofield to
10 demonstrate support in the involved specification for claim 94 in response to a rejection of that
11 claim by the examiner during ex parte examination, and to noting that each such description in
12 the involved application is not present in the disclosure of the '918 benefit application. Stam's
13 approach to the entitlement to benefit issue is misplaced and does not lead to a demonstration
14 that the disclosure of the '918 benefit application does not have written description for the
15 subject matter of claim 94. It is plainly evident that establishing that what is not contained in the
16 '918 benefit application disclosure provides a written description for the subject matter of claim
17 94 is not the same as and is far different from establishing that what is contained in the '918
18 benefit application disclosure does not provide a written description for the subject matter of
19 claim 94. The '918 benefit application need not have the same disclosure as that of Schofield's
20 involved application to provide a written description for an embodiment within the scope of
21 claim 94. Stam's motion should have focused on what description is in the '918 benefit
22 application rather than what description is in Schofield's involved application but not in the '918
23 benefit application.

24 Stam argues that during ex parte examination Schofield did not cite to any part of the
25 '918 benefit application as describing the subject matter of its claim 94. But support in the '918
26 benefit application disclosure was not necessary to justify having claim 94 in Schofield's
27 involved application. Moreover, once the interference has been declared and Schofield accorded
28 benefit of the '918 benefit application, the accordence of benefit is presumptively correct and

1 Stam bears the burden to demonstrate entitlement to the relief requested. It is of little
2 significance for Stam to turn the clock back to when Schofield first offered reasons to justify the
3 presence of claim 94. Schofield is not the party who must affirmatively establish a basis for
4 relief.

5 Stam also argues that during ex parte examination the examiner had already determined
6 that Schofield is not entitled to benefit of the filing date of the '918 benefit application, and that
7 Schofield acquiesced to that determination. According to Stam, the ex parte examiner denied
8 Schofield benefit of the '918 benefit application and Schofield did not contest that denial. On
9 that basis, Stam argues that Schofield should be estopped from arguing that its claims are entitled
10 to priority benefit of the '918 benefit application. The argument is rejected.

11 An examiner does not determine constructive reduction to practice under 35 U.S.C.
12 § 102(g). What an examiner does determine, from time to time, is benefit under 35 U.S.C. § 120,
13 which applies when an issue of intervening prior art pre-dating an applicant's actual filing date
14 arises or when an applicant during examination makes a claim for priority under 35 U.S.C. § 120.
15 Constructive reduction to practice under 35 U.S.C. § 102(g) is directed to a count in an
16 interference and is determined in the first instance by the board. Benefit under 35 U.S.C.
17 § 120 is directed to specific claims under rejection and can be determined by an examiner.
18 Stam's motion makes no distinction between the two. Here, when the examiner stated that
19 Schofield's application was not accorded benefit to the '918 benefit application, there was not yet
20 an interference proceeding and there was not yet any count for the interference. Stam does not
21 even point out with respect to which specific claim of Schofield did the examiner make the
22 determination that Schofield is not entitled to priority benefit of the '918 benefit application.
23 Moreover, Stam has not alleged that the examiner had applied any intervening prior art in a
24 rejection against any Schofield claim. On this record, Schofield would have had no duty to
25 contest the examiner's statement that it was not entitled to benefit of the '918 benefit application.

1 In any event, during ex parte examination, Schofield would not have been precluded from
2 changing its mind in a subsequent response, provided that it was not under a final rejection.
3 Even then, the preclusion arises from finality of the rejection and not from the principle of
4 estoppel.

5 Even assuming that the examiner had ruled on constructive reduction to practice, it is not
6 binding on the board. When this interference was declared and Schofield was accorded benefit
7 to the '918 benefit application, the notice of declaration of interference wiped the slate clean
8 insofar as any statement made by the examiner with regard to constructive reduction to practice is
9 concerned. The examiner's statement with regard to the same issue, assuming that it is the same,
10 has been made irrelevant, and likewise, any alleged acquiescence on the part of Schofield.

11 Stam further argues that the only discussion of a headlight-control system in the '918
12 benefit application is in the section bearing Roman numeral VI and entitled "Integrated Headlight
13 Control System." In that regard, Stam states (Motion page 12, line 21 to page 13, line 2): "This
14 section relates to a system that will 'have the vehicle's, headlights and sidelights automatically
15 turn on when background lighting levels fall to a sufficiently low level and automatically turn off
16 when background lighting levels rise sufficiently.'" The point of the argument is not clear. The
17 quoted text does not appear to be inconsistent with the subject matter of Schofield's claim 94 and
18 Stam does not assert, or explain why, the quoted text is inconsistent with claim 94. Claim 94
19 recites a system for controlling the state of the headlamps of a controlled vehicle. Automatically
20 turning the headlamps on and off based on the intensity of background lighting levels fits within
21 the definition of controlling the state of the headlamps of a controlled vehicle. In that regard,
22 note the following passage in column 18, lines 41-44 of the '918 benefit application:

23 An advantage of the automatic rearview mirror system 20 is that the
24 background light signal B_L may be used to automatically turn on and off a
25 vehicle's headlights and sidelights by controlling the vehicle lighting switch 45.
26

27 Finally, Stam argues (Motion on page 13, lines 7-8):

None of the figures in the '677 patent ['918 benefit application] show a filter or any other mechanism for selectively transmitting a predetermined spectral band of light onto the image sensor. *Material Fact 17*. As a result, the '677 patent cannot (and does not) describe an image processing system that provides a headlamp control signal as a function of the output of one or more pixels within one of said portions relative to the output of other pixels within the same portion.

That in the above-quoted argument Stam refers only to the figures in the '918 benefit application is troubling. The '918 benefit application disclosure is not limited to just drawings. Stam's argument is facially deficient, as it ignores description other than figures. What about this disclosure in column 7, lines 10-14:

Finally, since the preferred photosensor array 32 is responsive to both visible light and near infrared, it is preferable to select a material which reflects a significant proportion of visible light while being essentially transparent to infrared.

Stam does not point out and discuss the above-quoted text.

On page 13 of the motion Stam argues that the '918 benefit application does not disclose an optical system for imaging external sources of light within a predetermined field of view or an optical system configured to image light within each predetermined band onto particular portions of the image sensor. The argument is not supported by any testimony from a technical witness. "Argument of counsel cannot take the place of evidence lacking in the record." Meitzner v. Mindick, 549 F.2d 775, 782, 193 USPQ 17, 22 (CCPA), cert. denied, 434 U.S. 854, 195 USPQ 465 (1977). See also In re Pearson, 494 F.2d 1399, 1405, 181 USPQ 641, 646 (CCPA 1974) ("Attorney's argument in a brief cannot take the place of evidence."). What about the predetermined field of views shown in Figures 3A and 3B and corresponding descriptive text? What about the particular portions within an image sensor as shown in Figures 4A and 4B and corresponding descriptive text?

It may be true, or not, that the '918 benefit application disclosure does not provide a written description for the subject matter of Schofield's claim 94. We are not making an independent study of that issue. The question here is solely whether Stam's motion, i.e., the

1 arguments therein and the evidence in support thereof, has demonstrated that the disclosure of the
2 '918 benefit application does not provide a written description for Schofield's claim 94. On this
3 record, Stam has not satisfied its burden of proof. With regard to the various arguments
4 presented by Stam, there is simply a failure of proof.

5 For the foregoing reasons, Stam's motion has failed to set forth even a prima facie case of
6 entitlement to the relief requested. It is not necessary to consider Schofield's opposition or
7 Stam's reply. In any event, it would be too late for a Stam attempt to make up for deficiencies in
8 its initial motion by way of additional arguments in the reply brief. Stam's Motion 6 is **denied**.

9 G. Stam's Motion 7 attacking the benefit accorded Schofield to
10 the earlier filing date of application 09/023,918 for Count 3
11

12 In Motion 7, Stam attacks the benefit accorded Schofield, with respect to Count 3, to the
13 earlier filing date of Application 09/023,918, filed on February 26, 1993.

14 In connection with Stam's Motion 4, we have decided that Schofield's only claim
15 corresponding to Count 3, i.e., Schofield's claim 99, is unpatentable under 35 U.S.C. § 112, first
16 paragraph, and thus Schofield is without standing to continue in this interference with respect to
17 Count 3. We have decided to not authorize any priority motion in this case from either party
18 with respect to the subject matter of Count 3. Therefore, the initial accordance of benefit for
19 priority purposes, for Count 3 and as indicated in the notice of declaration of interference, is
20 inconsequential.

21 Accordingly, Stam's Motion 7 is **dismissed**.

22 H. Stam's Motion 8 alleging unpatentability
23 of Schofield's claims 89-93 over prior Art
24

25 In Motion 8, Stam asserts that Schofield's claim corresponding to Count 1, claims 89-93,
26 are unpatentable over various items of prior art, both for anticipation under 35 U.S.C. § 102 and
27 for obviousness under 35 U.S.C § 103. On the surface it appears to be an ordinary motion

1 commonly filed by parties in an interference. However, it is not. The premise of the motion is
2 based on a claim interpretation which even Stam itself does not believe in or urge, and one which
3 we have not had occasion to adopt.

4 In its motion, Stam does not indicate whether its own claims corresponding to Count 1
5 are also unpatentable over the same prior art that it asserts against Schofield's claims. But in its
6 reply, Stam unmistakably and twice states (§ 37 and § 44): "Stam admits that, if there is an
7 interference between the Stam claims corresponding to Count 1, and the Schofield claims
8 corresponding to Count 1, then the Stam claims are unpatentable for the same reasons as the
9 Schofield claims." It is Stam's position that there should not be an interference on the subject
10 matter of Count 1, as it has filed Motion 1 alleging no interference-in-fact on Count 1.

11 Stam's claims corresponding to Count 1 are claims 36-40. Stam's Motion 8 was filed on
12 November 15, 2005. Stam admits Schofield's Material Fact Paragraph 45, reproduced here:

13 45. Party Stam filed a Stam Second Notice of related Proceedings on
14 December 16, 2005. The Updated Notice indicates that Party Stam filed a
15 continuation application on December 13, 2005, which contains claims identical
16 to claims 36-40 of the Stam Patent interference designated as corresponding to
17 Count 1. In the Stam Second Updated Notice of Related proceedings, Party Stam
18 states that these claims were filed in a new, separate application, and that
19 immediate allowance of these claims would be expected since they are identical to
20 claims already determined to be allowable in the re-examined patent. (Stam
21 Second Updated Notice of Related proceedings)
22

23 Thus, within a month and a day of filing its Motion 8, which according to Stam asserts prior art
24 that would render both Schofield's claims 89-93 and Stam's claims 36-40 unpatentable for
25 anticipation and/or obviousness, Stam placed claims identical to its claims 36-40 in a new
26 application, filed the same in the U.S. Patent and Trademark Office, and further "expected"
27 immediate allowance of those identical claims in the separate application despite the
28 unpatentability motion filed by Stam in this interference.

29 Either Stam is purposely seeking issuance of claims which it believes are unpatentable or
30 some rational explanation is in order. We accept the explanation offered in Stam's reply.

1 According to Stam, the filing of claims identical to claims 36-40, in a new and separate
2 application is in response to Schofield's Motion 1 which asserts that Stam's claims 36-40 have
3 been improperly broadened during reexamination. There is no prohibition against broadening in
4 the new, separate application. Also according to Stam, based on Stam's own interpretation of
5 claims set forth in Stam's Motion 1 for no interference-in-fact, it actually believes that its claims
6 36-40 are patentable over the prior art. Further according to Stam, if the board reaches Stam's
7 Motion 8, that would mean the board denied Stam's Motion 1 and also disagreed with Stam's
8 claim interpretation, in which case both parties' claims would be unpatentable over prior art
9 according to Stam's Motion 8. In light of that explanation, there is no real issue about lack of
10 candor or good faith in dealing with the U.S. Patent and Trademark Office in filing the new
11 application .

12 However, Stam mistakenly assumed that if its Motion 1 alleging no interference-in-fact is
13 denied, the board must have necessarily rejected its argument on claim interpretation. In
14 deciding Stam's Motion 1, we did not have occasion to address Stam's claim interpretation.
15 Stam's view that both parties' claims corresponding to Count 1 are unpatentable over prior art, is
16 premised upon a claim interpretation that (1) Stam itself does not believe or urge, and (2) we
17 have not adopted in deciding any motion in this case. Stam's failure in Motion 8 to distinguish
18 its claims 36-40 from Schofield's claims 89-93, coupled with Stam's filing of claims identical to
19 claims 36-40 in a new application, are not harmless to Schofield who expended considerable
20 efforts in its opposition to raise and address the inconsistency.

21 Stam should have been aware of the discrepancy created by its failure to distinguish
22 Schofield's claims from Stam's claims in light of the filing of identical claims in a new
23 application, and anticipated the issue such a discrepancy raises. Stam should have supplemented
24 its Motion 8 to clarify the situation before Schofield had to spend considerable effort to address

1 the matter. Each party is herein placed on notice that in the future, all parties need to be more
2 diligent in quickly clarifying confusions or discrepancies that their own actions create.

3 Stam asserts that each of Schofield claims 89-93 is anticipated by U.S. Patent No.
4 5,426,294 (hereinafter "Kobayashi") (Exhibit 2022) under 35 U.S.C. § 102(e).

5 Stam asserts that each of Schofield claims 89-93 is anticipated by U.S. Patent 5,845,000
6 (hereinafter "Breed") (Exhibit 2021) under 35 U.S.C. § 102(e).

7 Stam asserts that each of Schofield claims 89-93 is anticipated by U.S. Patent No.
8 4,967,319 (hereinafter "Seko") (Exhibit 2023) under 35 U.S.C. § 102(b), or is obvious over the
9 combined teachings of Seko, Kobayashi and Breed under 35 U.S.C. § 103.

10 In the motion section titled Precise Relief Requested on page 1, Stam requests judgment
11 that Schofield's claims corresponding to Count 1 are anticipated by or rendered obvious over
12 patent No. 5,537,003 (hereinafter "Bechtel"), Breed, and Kobayashi. The reference to Bechtel
13 appears to be an inadvertent mistake, as the motion does not otherwise discuss anything about
14 Bechtel and Bechtel has not been provided as an item of evidence relied upon in the motion.
15 Therefore, we disregard the bare reference to Bechtel without any supporting fact and argument.

16 The parties dispute the effective date of Kobayashi and Breed as prior art references
17 under 35 U.S.C. § 102(e). The parties also dispute the effective filing date of Schofield's
18 involved application under 35 U.S.C. § 120 and/or 35 U.S.C. § 119. Stam incorrectly assumes
19 that if a prior art patent claims priority to an earlier filed application then it is entitled to that
20 earlier date as the date of the reference under 35 U.S.C. § 102(e), without any showing presented
21 in the motion. Actually, Stam as the moving party must establish the § 102(e) date under the
22 standards set forth in In re Wertheim, 646 F.2d 527, 537, 209 USPQ 554, 564 (CCPA 1981).
23 Both parties incorrectly assume that the effective filing date of Schofield's involved application
24 is governed by accordance of priority benefit and respective motions of the parties attacking
25 and/or obtaining priority benefit in this interference. Actually, an application's effective filing

1 date in antedating prior art for defensive purposes is determined on a claim by claim basis under
2 35 U.S.C. § 120 or § 119, whereas priority benefit for purposes of conducting an interference is
3 an issue of constructive reduction to practice under 35 U.S.C. § 102(g)(1) and is based on an
4 interference count. See 37 CFR § 41.201. The two concepts are distinct and not the same.
5 Obtaining one does not mean having the other, and vice versa, for any claim and for any count.

6 For purposes of our discussion below, we assume, without deciding, that each of
7 Kobayashi, Breed, and Seko constitutes applicable prior art, date-wise, against each claim of
8 Schofield's involved application under either 35 U.S.C. § 102(e) or 35 U.S.C. § 102(b).

9 Stam has not made out a prima facie case of anticipation of Schofield's claims 89-93
10 based on Kobayashi. Stam has not made out a prima facie case of anticipation of Schofield's
11 claims 89-93 based on Breed. Stam also has not made out a prima facie case of anticipation of
12 Schofield's claims 89-93 based on Seko. Furthermore, Stam has not made out a prima facie case
13 of obviousness of Schofield's claims 89-93 based on Kobayashi, Breed, and Seko.

14 In support of its motion, Stam relies on three separate claim charts labeled as Appendix
15 B, C, and D, one for each of Kobayashi, Breed, and Seko. Each chart comprises two columns,
16 the first listing in sequence the elements of each claim 89-93 and the second producing in
17 positions corresponding to each element in the first either the literal text or references to literal
18 text contained in the prior art reference to which the chart pertains.

19 The motion provides no explanation discussing how all the elements of any one claim are
20 met by an embodiment disclosed in a prior art reference. We have reviewed the claim charts and
21 found the second column in the charts for Kobayashi and for Breed to be a hodge podge
22 collection of various different embodiments in the prior art reference, i.e., Kobayashi, and Breed.
23 There is no apparent continuity of any one prior art embodiment in the second column as one
24 moves from one claim element to the next in the left column for all the elements of a claim.
25 Some embodiments referred to in connection with one claim element are not mentioned in

1 connection with other claim elements of the same claim. To the extent that Stam believes that to
2 make out a prima facie case of anticipation not all elements of a claim need to be found within
3 the same embodiment of a prior art reference, the belief is incorrect and erroneous.

4 In the absence of any attempt to explain its claim charts for the Kobayashi and Breed
5 references, Stam has given us a jig saw puzzle with a picture of what the end result is represented
6 to be and asked us to put the pieces together to form an image of the given picture. We decline
7 the invitation. A moving party has the burden of proof and must do its own work. We cannot be
8 partial toward either party, and cannot simply take a party's word as true that the pieces of the
9 puzzle can indeed be put together to form the image in the given picture. It is not self-evident
10 from the claim charts for Kobayashi and for Breed which disclosures quoted for the different
11 elements in a claim are from the same embodiment in the prior art reference. It is also not self
12 evident which embodiment, if any, supposedly contains all the elements of any one claim. For
13 that reason alone, Stam has not satisfied its burden of proof to demonstrate that any of
14 Schofield's claims 89-93 is anticipated by Kobayashi, or by Breed.

15 The claim chart presented in connection with Seko also cites to multiple embodiments but
16 has reasonable continuity only with respect to the embodiment shown in Figure 10. The
17 embodiment shown in Figure 2 is cited for the feature in claim 89 of imaging external sources of
18 light within a predetermined field of view but not for the feature of having two lenses and two
19 photosensor arrays and not for the feature in claim 89 of "each of said at least two lenses being
20 configured to image said predetermined field of view onto a respective one of said at least two
21 photosensor arrays." With regard to the latter features, we do not find that the portion of Seko in
22 column 7, lines 35-37, cited by Stam as disclosing that feature actually disclose the features.

23 As is explained in the cited text and shown in Figure 10, light sensor 13A which includes
24 a first lens includes an array of sensing elements that are used to sense light from a leading
25 vehicle, and light sensor 13B which includes a separate lens includes a light sensing section 26

1 that is used to sense light from opposed vehicles. Figure 10 illustrates that the lens in sensor 13B
2 is set internally of a channel pointed at an angle relative to the front of a vehicle. It is not
3 apparent from that disclosure and Stam has not explained how is it that the two lenses are
4 imaging the same predetermined field of view onto different photosensor arrays. Sensor 13A is
5 directed toward the front to sense light from a leading vehicle while sensor 13B is directed
6 toward the left at an angle to sense light from an opposing vehicle. It is evident that the field of
7 view imaged by the two lenses in the separate sensors are not the same, contrary to the
8 requirement of the claim. While both sensors image a predetermined field of view, the claim
9 requires that two lenses are configured to image "said" predetermined field of view, thus
10 requiring the imaged fields to be the same.

11 Furthermore, with regard to the feature in claim 89 of "each of said two lenses being
12 configured to image said predetermined field of view onto a respective one of said at least two
13 photosensor arrays," we do not find that the portion of Kobayashi in column 5, lines 33-49, cited
14 by Stam as disclosing that feature actually discloses the feature. A plain and logical reading of
15 the claim feature according to ordinary English usage reveals the requirement that while one lens
16 images the predetermined field of view onto a first photosensor array and not the second, the
17 other lens images the same predetermined field of view onto a second photosensor array and not
18 the first. The phrase "onto a respective one" connotes the idea of separation and exclusivity.
19 Stam has not submitted evidence that the claim language would be read differently by one with
20 ordinary skill in the art. As shown in Figures 8A to 8C, each lens 402 sends light to both
21 photosensor arrays 404A and 404B through optical fibers 411a and 411b. Stam has not
22 persuaded us that the claim feature is met by the cited portion of Kobayashi.

23 Further in connection with the anticipation rejection over Breed, we do not find that the
24 portion of Breed in column 11, lines 25-33, cited as disclosing the feature in claim 89 of "each of
25 said two lenses being configured to image said predetermined field of view onto a respective one

1 of said at least two photosensor arrays” actually discloses the feature. As is correctly pointed out
2 by Schofield, the disclosure cited by Stam pertains to an interior cabin monitoring system which
3 uses two sensors to determine the distance to various objects within the passenger compartment
4 of a vehicle. The cited disclosure does not image “said predetermined field of view” which
5 refers back to a predetermined field of view including external sources of light.

6 Because Stam has not established that any of Kobayashi, Breed, or Seko anticipates
7 independent claim 89, Stam also has not established that any of Kobayashi, Breed, or Seko
8 anticipates claims 90, 91, 92, and 93, all of which depend directly or indirectly from claim 89.
9 Moreover, Stam expressly acknowledges that Seko does not disclose the features added by
10 dependent claims 91 and 92 (Motion page 14, lines 13-15). Consequently, Seko cannot
11 anticipate claims 91 and 92.

12 As for the assertion of obviousness of claims 91 and 92 over the combined teachings of
13 Seko, Kobayashi, and Breed, Stam has also not met its burden of proof. First, Stam relies on
14 Seko as disclosing all of the claim elements of independent claim 89, which argument has been
15 rejected. Furthermore, claim 91 includes a means-plus-function clause under 35 U.S.C. § 112,
16 sixth paragraph, which under the patent statute must be construed as covering only the
17 corresponding structure, material, or acts described in the specification and equivalents thereof.
18 In re Donaldson Co., Inc., 16 F.3d 1189, 1193, 29 USPQ2d 1845, 1848 (Fed. Cir. 1994) (in
19 banc). It appears that Stam has entirely omitted the necessary analysis under 35 U.S.C. § 112,
20 sixth paragraph, and improperly regarded the claim feature as covering anything that performs
21 the recited function.

22 For the foregoing reasons, Motion 8 is, in the alternative, denied.²

² We reject Schofield’s argument that spaced apart sensor arrays cannot image the same field of view. Schofield’s own Figure 6 illustrates two spaced apart sensors imaging the same target scene. The key question is in which direction are the sensors looking and whether each has an unobstructed view rather than whether the sensors are located next to each other. We also reject Schofield’s argument that because Seko was of record during examination of the application

1 H. Stam's Motion 9 alleging unpatentability
2 of Schofield's claims 94-98 over prior Art
3

4 Stam's Motion 9 is accompanied by Appendices A through O.

5 Stam asserts that Schofield's claims 94-98 are anticipated by Kobayashi.

6 Stam asserts that Schofield's claims 94-98 are anticipated by Bechtel.

7 Stam asserts that Schofield's claims 94 and 95 are anticipated by Breed, and that
8 Schofield's claims 96-98 would have been obvious over the combined teachings of Breed,
9 Bechtel and Kobayashi. Stam asserts that Schofield's claims 94-98 are anticipated by Japanese
10 Patent Application Publication 62-131,837 (hereinafter "Japanese '837 Application") (Exhibit
11 2024).

12 Stam asserts that Schofield's claim 94 is anticipated by Japanese Patent Application
13 Publication 06-276524 (hereinafter "Japanese '524 Application")(Exhibit 2026).

14 While a number of different grounds of unpatentability based on other prior art are also
15 asserted by Stam in Motion 9, in a submission filed May 26, 2006 (Paper No. 114), Stam
16 withdrew its Motion 9 insofar as it relies on the other prior art references. Accordingly, the only
17 patentability issues before us for consideration are those specifically enumerated above.

18 As is already explained above in the context of Stam's Motion 8, Stam has a
19 misunderstanding about the date of a reference under 35 U.S.C. § 102(e) and both parties
20 mistakenly equate priority benefit in an interference with the effective filing date of an
21 application for defensive purposes in antedating prior art. For purposes of our discussion below,

which matured into Stam's involved patent, Stam is estopped from alleging unpatentability of its own claims over Seko. If at any time a party is of the view that its own claims are unpatentable, that is the position it should take before the Patent and Trademark Office. We further reject Schofield's argument that a linearly arranged, one dimensional, light sensor such as that disclosed by Kobayashi and by Seko cannot image sources of light within a predetermined field of view, assuming, without deciding, that Kobayashi's and Seko's disclosed sensor is linearly arranged and one dimensional. The supporting declaration of Dr. Niall Lynam indicates only that such a linear sensor does not image light in a predetermined view "in the manner disclosed" in Stam's involved patent and Schofield's involved application and not that it does not image light in a predetermined field of view in the absolute sense (Exhibit 1022, ¶ 47). Dr. Lynam also states only that the linear one dimensional sensor is not an image array sensor "as disclosed" in Stam's involved patent and Schofield's involved application, not that it is not any form of a photosensor array (Exhibit 1022, ¶ 47).

we assume, without deciding, that each of Kobayashi, Bechtel, Breed, Japanese '837 Application, and Japanese '524 Application, qualifies date-wise as prior art against each claim of Schofield's involved application under 35 U.S.C. § 102(e) and 102(b).

Schofield's claims 94 and 95 are reproduced below:

94. A control system for automatically controlling the high beam state of the headlamps of a controlled vehicle comprising:

an optical system for imaging external sources of light within a predetermined field of view onto an image sensor containing a plurality of pixels, said optical system configured to selectively transmit one or more predetermined spectral bands of light, and said optical system configured to image light within each predetermined spectral band onto particular portions of said image sensor; and

an image processing system for processign images from said optical system and providing a control signal for controlling the high beam state of the headlamps as a function of the output of one or more pixels within one of said portions relative to the output of other pixels within the same portion.

95. A control system for automatically controlling the high beam state of the headlamps of a controlled vehicle comprising:

an optical system for imaging external sources of light within a predetermined field of view onto an image sensor containing a plurality of pixels, said optical system configured to selectively transmit one or more predetermined spectral bands of light, and said optical system configured to image light within each predetermined spectral band onto particular portions of said image sensor; and

an image processing system for processing images from said optical system and providing a control signal for controlling the high beam state of the headlamps as a function of the output of one or more pixels within one of said portions relative to the output of other pixels within the same portion, wherein said image processing system provides a control signal for controlling the high beam state of the headlamps as a function of the output of pixels within one of said portions relative to the output of pixels within another one of said portions and where each of said pixels within one portion images substantially the same region of space as a corresponding pixel within the other portion.

Claim 95 includes all of the features of claim 94. Claim 96 depends from claim 95; claim 97 depends from claim 96; and claim 98 depends from claim 94. Consequently, each of claims 95-98 includes all the features of claim 94.

1 For purposes of our analysis discussed below, we assume, without deciding, that each of
2 Kobayashi, Japanese '524 Application, Japanese '837 Application, Bechtel, and Breed, qualifies
3 as applicable prior art against Schofield under either 35 U.S.C. § 102(e) or § 102(b).

4 Kobayashi

5 Stam has taken a very non-committal approach in reading claim 94 onto Kobayashi.
6 Stam's arguments do not point out which is the one predetermined band being selectively
7 transmitted, or if more than one spectral bands are transmitted then what are they. Nor do the
8 arguments point out specifically which are the particular portions of the image sensor onto which
9 light from within each predetermined spectral band are imaged. However, Stam does refer to
10 Kobayashi's use of blue filters 8 which shut off red light on selected photodiodes 7a in Figure 4.
11 Giving Stam the benefit of doubt, which is reasonable under the facts of this case, we will regard
12 blue as the predetermined spectral band purportedly being imaged onto particular portions of the
13 photosensor. That also leads to regarding photodiodes 7a as the "particular portions" relied on to
14 meet Schofield's claims. Anything other idea about transmission of predetermined spectral
15 bands and imaging each predetermined spectral band onto particular portions of the sensor has
16 not been adequately developed or asserted by Stam to constitute reasonable notice to Schofield.

17 To meet the limitation off the imaging system providing a control signal for controlling
18 the high beam state of the headlamps as a function of the output of one or more pixels within one
19 of said portions relative to the output of other pixels within the same portion, Stam cites to
20 Kobayashi's column 3, lines 31-38 and column 10, lines 54-66. Those portions of Kobayashi
21 reveals, however, only that the signals from photodiodes 7a which constitute "the portions" are
22 compared to signals from photodiodes 7b which are not any part of "said portions," and not that
23 any signal from within one of the portions are compared with other signals generated from within
24 the same portion. If there is another way to read claim 94 onto Kobayashi, Stam certainly has not
25 proposed it and it is not our role to fill in or complete holes left uncovered by a moving party.

1 Stam further argues (Appendix D, page 12):

2 Moreover control 650 would inherently have to control the high beam state of the
3 headlamps as a function of the output of one or more pixels within one of the
4 headlamps as a function of the output of one or more pixels within one of the
5 portions relative to the output of other pixels within the same portion insofar as it
6 would appear to be impossible to distinguish light sources above the horizon H
7 from those below the horizon by only evaluating the output of a single pixel
8 without evaluating additional pixels in the image sensor.
9

10 The above-quoted text constitutes only argument of counsel, which does not take the place of
11 evidence lacking in the record. See Meitzner v. Mindick, 549 F.2d at 782, 193 USPQ at 22.

12 Also, the fact that Stam's attorney does not see another way of accomplishing an objective does
13 not necessarily mean one with ordinary skill in the art equally cannot. The inherency argument
14 also fails in light of the different disclosure cited to in Kobayashi, in which signals generated
15 from with "said portions" of the image sensor are actually compared with signals generated from
16 other parts of the sensor, as already noted above. Additionally, we do not take counsel's
17 assertion as proof, when Stam's counsel, during prosecution of the application issuing as Stam's
18 involved patent, effectively represented the contrary, as reproduced below (Exhibit 1005, page
19 10):

20 For example, the Kobayashi et al. patent does not disclose "an image processing
21 system for providing a headlamp signal as a function of the relative output of the
22 pixels imaging external sources of light" as recited in Amended Claim 8. As
23 such, there can be no anticipation. Moreover, it is respectfully submitted that the
24 Kobayashi et al. patent does not disclose, suggest or imply these features.
25

26 Nowhere in Stam's initial motion is the above-quoted representation during prosecution
27 explained.

28 For the foregoing reason, Stam has not made out a prima facie case of anticipation of
29 Schofield's claim 94 based on Kobayashi, and therefore also has not made out a prima facie case
30 of anticipation of Schofield's claims 95-98 based on Kobayashi.

1 Stam's Motion 9 is denied insofar as it asserts anticipation of Schofield's claims 94-98
2 by Kobayashi.

3 Japanese '524 Application

4 As is the case with Kobayashi, in connection with the Japanese '524 Application Stam
5 remains very non-committal with regard to what constitutes a particular portion and what are the
6 "particular portions" relied on to meet the various features of the claim making reference to
7 functions taking place with regard to such particular portions. Stam does not support counsel's
8 argument in connection with the Japanese '524 application with any testimony from a technical
9 expert familiar with the pertinent art.

10 Stam's counsel says (Motion Appendix G):

- 11 1. A TV camera inherently includes a plurality of pixels.
- 12 2. The TV camera selectively transmits one predetermined spectral band of light,
13 visible light.
- 14 3. The TV camera is further configured to image light within the one predetermined
15 spectral band onto particular portions of the scenery array of the TV camera.

16 Stam does not cite to any part of Japanese '524 Application or any technical expert
17 testimony to support these assertions. Consequently, the assertions are merely the personal views
18 of Stam's counsel, which does not take the place of evidence lacking in the record. Meitzner v.
19 Mindick, 549 F.2d at 782, 193 USPQ at 22. We do not take mere counsel's representation as
20 established fact.

21 Even if we were to accept the opinion of Stam's counsel with regard to items 1-3 above,
22 the following argument of Stam's counsel cannot be accepted as demonstrating the presence of a
23 corresponding feature in Japanese '524 Application (Appendix G, column 2, third box):

24 Imaging processing system 48/control unit 50 processes images from the TV
25 camera 22 and provides a control signal for controlling the high beam state of the

1 headlamps 18 and 20 as a function of the output of one or more pixels within one
2 of the portion of the TV camera pixel array relative to the output of other pixels
3 within the same portion. See Exhibit 2026, paragraph [0048] and Fig. 4 and 5(1)-
4 5(6).
5

6 Again, Stam remains on a generic level and persists in not identifying any particular portion or
7 particular portions of a sensor array to which the TV camera images the visible band of light.
8 Figures 4, 5(1), and 5(2) do not illustrate anything with regard to the processing of the outputs of
9 any pixels from a sensor array. Neither does the description in Paragraph 0048 of the Japanese
10 '524 Application, cited by Stam:

11 Thus, because the recognition region of the vehicle 11 ahead is changed
12 correspondingly to the curving degree of the road and vehicle speed, the vehicle
13 speed recognition region that will be obtained can reliably contain the range in
14 which the probability of the vehicle ahead being present is actually high, and the
15 vehicle ahead can be recognized with high probability.
16

17 If the above-quoted text is a description that a control signal is provided for controlling the high
18 beam state of the headlamps as a function of the output of one or more pixels within one of the
19 portion of the TV camera pixel array relative to the output of other pixels within the same
20 portion, Stam certainly has not explained how. The rationale is neither apparent nor expressed.
21 Essentially, Stam identifies a TV camera in the Japanese '524 Application and concludes,
22 without meaningful explanation or supporting testimony, that claim 94 is anticipated by the
23 Japanese '524 Application. We are unpersuaded by Stam's effort. Stam has not met its burden
24 of proof.

25 For the foregoing reason, Stam has not made out a prima facie case of anticipation of
26 Schofield's claim 94 based on the Japanese '524 Application.

27 Stam's Motion 9 is **denied** insofar as it asserts anticipation of Schofield's claim 94 by the
28 Japanese '524 Application.

Japanese '837 Application

With regard to the Japanese '837 Application, Stam is even more vague and non-committal as it is with the Japanese '524 Application. In connection with the Japanese '837 Application as prior art, Stam does not even articulate whether it is selectively transmitting one predetermined spectral band of light, or more than one spectral band. Stam keeps to using the generic language one or more predetermined spectral bands of light, seemingly not recognizing that as the moving party it needs to demonstrate an embodiment in the Japanese '837 Application that fits within the generic claim language. As in the case of the Japanese '524 Application, Stam cites to nothing in the Japanese '837 application nor any supporting testimony of an expert familiar with the pertinent art, and provides only counsel's representation that (1) a color TV camera was known to include at least one lens for imaging a field of view onto an image sensor containing a plurality of pixels, (2) a color TV camera is configured to selectively transmit one or more predetermined spectral bands of light, and (3) a color TV camera is configured to image light within each predetermined spectral band onto particular portions of the image sensor. Again, counsel's argument does not take the place of evidence lacking in the record. Meitzner v. Mindick, 549 F.2d at 782, 193 USPQ at 22. Counsel's opinion also does not establish a fact. Although Stam cites to U.S. Patent Nos. 5,251,019; 5,311,320; and 4,553,159, it is for the proposition that they disclose conventional color TVs configured substantially the same way as disclosed in Schofield's own specification. Such citations are not meaningful, as Stam does not point out, by page and line number of each cited reference, that description tending to support any particular expressed view of counsel. For instance, Stam does not point out, for any of the three cited patents, where is the disclosure that (1) the TV contains an image sensor including a plurality of pixels; (2) the TV transmits one or more predetermined spectral bands of light; and (3) the TV images each predetermined spectral bands of light onto particular portions of the

1 sensor. Just as Stam fails to demonstrate that the Japanese '837 Application discloses these
2 claim features of Schofield's claim 94, Stam similarly fails to demonstrate that the color TV in
3 the three cited patents performs these claim features of Schofield's claim 94. It is not our role to
4 sift through each of the references to make out a case for party Stam. Party Schofield is equally
5 without reasonable notice as to where the alleged teachings are that Stam's counsel has in mind
6 with regard to the cited patents.

7 Even if we were to accept the opinion of Stam's counsel with regard to items 1-3 above,
8 the following argument of Stam's counsel cannot be accepted as demonstrating the presence of a
9 corresponding feature in Japanese '837 Application (Appendix E, column 2, third box):

10 Image processor 14 and execution part 15 (Exhibit 2024, Fig. 1) represent an
11 image processing system for processing images and providing a control signal to
12 control the high beam state of the headlamps. **Because the image processing**
13 **system evaluates the location within the image of pairs of headlamps or tail**
14 **lamps and determines the spacing between each light of a pair (see p. 7, lines**
15 **1-4 and lines 14-19 of the English translation), it is clear that the image**
16 **processing system controls the headlamps as a function of the output of one**
17 **or more pixels within one of said portions relative to the output of other**
18 **pixels within the same portion. (Emphasis added).**
19

20 The bolded portion of the above-quoted argument is entirely the argument of counsel and not
21 supported by testimony from an expert familiar with the pertinent art. We do not take the view
22 of Stam's counsel as sufficient for establishing a disputed fact. See Meitzner v. Mindick, 549
23 F.2d at 782, 193 USPQ at 22. Moreover, the argument leaves unanswered two important
24 inquiries. First, why is it clear that the image processing system must provide a control signal
25 that is a function of the outputs of pixels in the same portion relative to each other rather than the
26 outputs of pixels in different portions relative to each other? That deficiency of the argument is
27 made more acute and significant as Stam has not specifically pointed out what constitutes the
28 "particular portions" in the purported sensor of the Japanese '837 Application.

1 Furthermore, claim 95 includes an additional limitation that the control signal is provided
2 as a function of the output of pixels within one portion relative to the outputs of pixels in another
3 portion and Stam also asserts that claim 95 is anticipated by the Japanese '837 Application. That
4 circumstance raises the further inquiry that if the headlamps can be controlled as a function of the
5 relative outputs of pixels in different portions, then why must it necessarily be so that the outputs
6 from pixels in the same portion are the basis for the control signal? The unsupported opinion of
7 Stam's counsel raises more questions than it answers.

8 For all of the foregoing reason, Stam has not made out a prima facie case of anticipation
9 of Schofield's claim 94 based on the Japanese '837 Application, and therefore also has not made
10 out a prima facie case of anticipation of Schofield's claims 95-98 based on the Japanese '837
11 Application.

12 Stam's Motion 9 is denied insofar as it asserts anticipation of Schofield's claims 94-98
13 by the Japanese '837 Application.

14 Bechtel

15 With respect to the feature in Schofield's claim 94 of imaging external sources of light
16 within a predetermined field of view onto an image sensor containing a plurality of pixels, the
17 embodiments of Bechtel which makes use of only a single photosensing element rather than an
18 array sensor are indisputably inadequate. However, Stam cites to the following text in column
19 36, lines 1-4 of Bechtel:

20 a number of the novel scanning, and color sensing features of the headlamp
21 dimmer control can be performed by a multi-element silicon sensor or even by a
22 video array.
23

24 The above-quoted portion of Bechtel comes from a section at the end of the specification,
25 just before the claims, where Bechtel makes a general suggestion for other modifications which
26 are within the purview of the disclosed invention even though embodiments of those

1 modifications have not been specifically disclosed in any particular embodiment. Moreover, the
2 cited text does not describe which of the heretofore disclosed novel scanning, and color sensing
3 features can be performed by a video array. Based on the cited text, Bechtel does not really
4 disclose an embodiment wherein a video array made of a plurality of silicon sensors is used for
5 imaging a field of view forward of the vehicle so as to image external sources of light, although
6 certainly a suggestion has been made. The particulars of the embodiment are not disclosed but
7 left to the reader. Moreover, Bechtel says nothing of getting rid of the mechanical scanning
8 function used with the single photosensing element when and if a video array is used instead of
9 the single photosensing element. If anything, only a straight substitution of a single photosensing
10 element with a video array is disclosed, for those embodiments making use of only a single
11 photosensing element.

12 According to Stam, Bechtel proposes substitution of the video array as the image sensor
13 and thus Bechtel “transmits one predetermined spectral band (visible light) that is imaged onto a
14 particular portion of the image array sensor (the entire array)” (Motion 9 – Appendix B, page 3,
15 column 2, third block). But Stam does not identify which embodiment is involved in the
16 substitution.

17 With regard to substituting a video array for the single photosensing element, Schofield is
18 correct that as shown in Figure 10 and discussed in connection therewith a rotary head of a
19 mechanical scanning mechanism would rotate to image light within three different spectral bands
20 onto the same one single particular portion, the entire array of the image sensor, thus not
21 satisfying the claim feature of imaging light within each predetermined spectral band onto
22 particular portions of the image sensor. Although the term “particular portions” as broad,
23 essentially any portion can be a particular portion, it is not so broad that it reads on only a single
24 particular portion considered at different times.

1 In any event, we reject Stam's notion that where only a single spectral band of light is
2 transmitted, the optical system need only image light onto a particular portion of the image
3 sensor rather than onto particular portions of the image sensor as is recited in Schofield's claim
4 94. The claims language is "configured to image light within each predetermined spectral band
5 onto particular portions of said image sensor." The term "particular portions" is not present only
6 with respect to plural predetermined spectral bands. It is present and has meaning for "each
7 predetermined spectral band" and cannot be ignored where there is but a single predetermined
8 spectral band. Of course, a different argument can be made that a particular portion has sub-parts
9 each of which constitutes in turn another particular portion. But that argument was not made by
10 Stam and is not Stam's theory for relief. Schofield also has no notice of that alternative
11 argument.

12 We recognize that according to Stam, Bechtel proposes to replace the mechanical
13 scanning mechanism of Figure 10 as well (Motion 9 – Appendix B, page 4, column 2). But the
14 only support evidently comes from this sentence in column 36, lines 1-4 of Bechtel: "Second, a
15 number of the novel scanning, and color sensing features of the headlamp dimmer control can be
16 performed by a multi-element silicon sensor or even by a video array." But it just is not clear
17 from that vague description whether the mechanical scanning mechanism, i.e., the rotary head
18 and associated apparatus, would be eliminated or simply the single photosensor element would
19 be replaced by the video array. We do not regard counsel's opinion as sufficient for establishing
20 a disputed fact. See Meitzner v. Mindick, 549 F.2d at 782, 193 USPQ at 22. Stam cites to no
21 supporting testimony of a technical witness familiar with the pertinent art that one with ordinary
22 skill in the art would recognize the sentence in column 36, lines 1-4 of Bechtel as disclosing that
23 the mechanical rotary head mechanism rotating the single photosensing element would also be
24 eliminated if a video array is substituted for the single photosensing element. And if there
25 merely is disclosure that motivates or leads one with ordinary skill to that end, without disclosing

1 exactly that elimination, the ground of unpatentability would have to be obviousness, not
2 anticipation.

3 Finally, to meet the claim feature of the system providing a control signal for controlling
4 the high beam state of the headlamps as a function of the output of one or more pixels within one
5 of said portions relative to the output of other pixels within the same portion, Stam additionally
6 argues (Motion 9 – Appendix B, page 4, column 2):

7 In col. 36, lines 4-9, Bechtel et al. states that the ability to partition the field of
8 view into smaller areas is important so that the diffuse light reflected from objects
9 by the vehicle's own headlamps or coming from sources over the total field of
10 view does not drown out the signal from relative weak tail lamps. This suggests
11 that the microcontroller would provide a control signal for controlling the high
12 beam state of the headlamps as a function of the output of one or more pixels
13 within one of said portions relative to the output of other pixels within the same
14 portion, since all of the pixels would be in the same portion.

15
16 We have already rejected Stam's view that imaging a predetermined spectral band onto a single
17 portion of the image sensor satisfies the limitation of imaging light within each of one or more
18 predetermined spectral bands onto particular portions of the image sensor. Additionally, it is not
19 apparent what the sentence about partitioning the field of view into smaller areas has to do with a
20 control signal providing control as a function of the output of one or more pixels in of the said
21 portions relative to other pixels within the same portion. Stam has not provided adequate
22 explanation. As for the second sentence stating that the disclosure referred to in the first sentence
23 "suggests" the claim feature at issue here, it reflects reliance on obviousness rather than
24 anticipation as the ground of asserted unpatentability. If it is obviousness, that is not the ground
25 of unpatentability asserted by Stam in the motion. If it is anticipation, we do not regard the
26 attorney's bare opinion on what is disclosed by Bechtel as sufficient to establish that fact. See
27 Meitzner v. Mindick, 549 F.2d at 782, 193 USPQ at 22. In that connection, with regard to what
28 the disclosure on column 36, lines 4-9 of Bechtel means to one with ordinary skill, Stam has not
29 submitted the supporting testimony of any technical expert familiar with the pertinent art.

1 For all of the foregoing reason, Stam has not satisfied its burden of proof for showing that
2 Schofield's claim 94 is anticipated by Bechtel, and therefore also has not satisfied its burden of
3 proof for showing that Schofield's claims 95-98 are anticipated by Bechtel.

4 Stam's Motion 9 is denied insofar as it asserts anticipation of Schofield's claims 94-98
5 by Bechhtel.

6 Breed

7 For the recitation in claim 94 of a control system for automatically controlling the high
8 beam state of the headlamps of a controlled vehicle comprising an optical system for imaging
9 external sources of light within a predetermined field of view onto an image sensor containing a
10 plurality of pixels, Stam successfully finds (Motion 9 – Appendix C, column 2, first and second
11 block) a direct reading onto the following portions of Breed:

12 [A principle object of the invention is] [t]o provide a smart headlight dimmer
13 which senses the headlights from an oncoming vehicle or the tail lights of a
14 vehicle in front of the subject vehicle and identifies these lights differentiating
15 them from reflections from signs or the road surface and then sends a signal to
16 dim the headlights. [Exhibit 2021, column 8, lines 42-47]

17
18 the pattern recognition system is trained to recognize the pattern of the headlights
19 of an oncoming vehicle or the tail lights of a vehicle in front of vehicle 810 and to
20 then dim the headlights when either of these conditions is sensed. [Exhibit 2021,
21 column 19, lines 35-38]

22
23 FIG 8 illustrates the exterior monitoring system for use in detecting the headlights
24 of an oncoming vehicle in front of vehicle 810. In this embodiment, the CCD
25 array is designed to be sensitive to visible light and a separate source of
26 illumination is not used. [Exhibit 2021, column 19, lines 26-31]

27
28 For the recitation in claim 94 of the optical system being configured to selectively
29 transmit one or more predetermined spectral bands of light and to image light within each
30 predetermined spectral band onto particular portions of the image sensor, Stam cites (Motion 9 –
31 Appendix C, column 2, third block) to a portion of Breed which includes this description: "One
32 problem is to differentiate taillights where dimming is desired from distant headlights where

1 dimming is not desired. Three techniques are used: . . . (iii) use of a red filter where the
2 brightness of the light sources is compared with the brightness of the unfiltered light” (Exhibit
3 2021, column 18, lines 40-53).

4 Based solely on the above-quoted text, Stam concludes that “[t]he optical system of
5 Breed is configured to selectively transmit one or more predetermined spectral bands of light
6 (visible and red-filtered/unfiltered) and to image light within each spectral band **onto particular**
7 **portion** of the CCD array” (Emphasis added) (Motion 9 – Appendix C, column 2, third block).
8 Furthermore, Stam argues that even if the optical system of Breed is monochromatic, the system
9 would inherently transmit one or more predetermined spectral bands of light and “[t]he light
10 would likewise be transmitted **onto at least a portion** of the CCD array” (Emphasis added)
11 (Motion 9 – Appendix C, column 2, third block).

12 Somehow, the claim recitation of “particular portions” has been read by Stam as requiring
13 only one portion, without any explanation from Stam. The term “particular portions” is not
14 specially defined in Schofield’s specification. That means it should be read according to ordinary
15 English usage unless Stam or Schofield submits evidence such as testimony from an expert in the
16 pertinent field to indicate a special reading or understanding of the term by one with ordinary
17 skill in the art. No such evidence has been submitted by Stam in connection with the meaning of
18 “particular portions.” In accordance with ordinary English usage, the plural term “particular
19 portions” cannot be equated with a singular “portion.” Although an argument could have been
20 made to the effect that a portion can be divided into its own sub-portions and therefore one
21 portion is the same as many portions, as many as one would like, it was not made by Stam and
22 Schofield has no reasonable notice of that argument. Moreover, if the argument was made, it
23 would require Stam to account for precisely what was imaged into one sub-portion as opposed to
24 another sub-portion, in order to determine whether an additional claim feature regarding pixels

1 within the same portion is met. No such specific accounting with regard to sub-portions has been
2 provided by Stam.

3 Stam's unexplained equating a single portion to plural particular portions is not
4 insignificant or harmless. It is axiomatic that where a claim requires a plurality of an item, the
5 feature cannot be met with a singular item. Also, claim 94 further requires the control signal to
6 be a function of the output of one or more pixels within one portion relative to the output of
7 other pixels within the same portion. By eliminating the distinction between multiple portions,
8 Stam is reading important limitations out of Schofield's claim 94, which is improper.

9 To meet the further feature in claim 94 of providing a control signal for controlling the
10 high beam state of the headlamps as a function of the output of one or more pixels within one of
11 said portions relative to the output of other pixels within the same portion, Stam cites (Motion 9
12 – Appendix C, page 9, column 2, first block) to this disclosure in Breed (Exhibit 2021, column
13 19, lines 31-38):

14 .Once again, the key to this technology is the use of trained pattern recognition
15 algorithms and particularly of the artificial neural network. Here as in the other
16 cases above and in the copending patent applications referenced above, the pattern
17 recognition system is trained to recognize the pattern of the headlights of an
18 oncoming vehicle or the tail lights of a vehicle in front of vehicle 810 and then
19 dim the headlights when either of these conditions is sensed.
20

21 Based on the above-quoted text in Breed, Stam argues (Motion 9 – Appendix C, page 9, column
22 2, first block) that “[a] pattern recognition system would inherently control the headlamps as a
23 function of the output of one or more pixels within one of the portions relative to the output of
24 other pixels within the same portion insofar as it would appear to be impossible to perform
25 pattern recognition to distinguish light sources from one another by only evaluating the output of
26 a single pixel without evaluating additional pixels in the image sensor.” In support of that
27 argument, Stam cites to no testimony from someone familiar with the pertinent art who testifies
28 from the perspective of one with ordinary skill in the art. What we have is only attorney

1 argument that pattern recognition necessarily requires comparing out put of pixels in one portion
2 with output of other pixels in the same portion. But attorney argument does not take the place of
3 evidence lacking in the record. See Meitzner v. Mindick, 549 F.2d at 782, 193 USPQ at 22. We
4 do not take the opinion of Stam's counsel as sufficient to establish a disputed fact. As is pointed
5 out by Schofield (Opposition 9, page 18), what about a pattern recognition system that compares
6 the output of pixels with predetermined threshold values? What about a pattern recognition
7 system that compares the output of pixels in one portion with the output of pixels from a
8 different portion? Stam has not sufficiently addressed these issues. We are unpersuaded by
9 Stam's inherency argument. Moreover, the claim feature at issue here pertains to the control
10 signal's being a function of the output of one or more pixels within one portion relative to the
11 output of other pixels in the same portion, and not as Stam seems to believe, that is, relative to
12 the output of another pixel somewhere in the image sensor, whether or not within the same
13 portion.

14 For all of the foregoing reason, Stam has not satisfied its burden of proof for showing that
15 Schofield's claim 94 is anticipated by Breed, and therefore also has not satisfied its burden of
16 proof for showing that Schofield's claim 95 is anticipated by Breed. Note further that as to claim
17 95, Stam made no meaningful attempt to read an additional feature onto Breed requiring that the
18 control signal be a function of the output of pixels within one portion relative to the output of
19 pixels within another portion wherein each pixel within one portion images substantially the
20 same region of space as a corresponding pixel within the other portion. For that feature, Stam
21 only states (Motion 9 – Appendix C, column 2, second block): "[t]he pattern recognition system
22 constitutes an image processing system that processes images from the CCD arrays and provides
23 a control signal to dim the headlights as a function of the outputs of the pixels." Patently, the
24 effort is inadequate and does not account for the claim feature at issue, i.e., that the control signal
25 is a function of the output of pixels from one portion relative to the output of pixels in another

1 portion, and that each pixel in one portion images substantially the same region of space of a
2 corresponding pixel in another portion. Also for this reason, Stam has not satisfied its burden of
3 proof for showing that Schofield's claim 95 is anticipated by Breed.

4 Stam's Motion 9 is denied insofar as it asserts anticipation of Schofield's claims 94 and
5 95 by Breed.

6 As for the assertion of obviousness of claims 96-98 over Breed, Kobayashi, and Bechtel,
7 Stam still relies on Breed to meet all the requirements of independent claims 94 and 95.
8 Kobayashi and Bechtel are relied upon only to help meet the additional requirements of
9 dependent claims 96-98. Claim 96 depends from claim 95. Claim 97 depends from claim 96.
10 Claim 98 depends from claim 94. Because Stam has failed to establish anticipation of claims 94
11 and 95 by Breed, the obviousness assertion of claims 96-98 also must fail.

12 Stam's Motion 9 is denied insofar as it asserts obviousness of Schofield's claims 96-98
13 over the combined teachings of Breed, Bechtel, and Kobayashi.

14 J. Stam's Motion 10 alleging the
15 unpatentability of Schofield's claim 99 over prior art
16

17 Stam's Motion 10 asserts that Schofield's claim 99 is unpatentable over prior art.
18 Specifically, Stam asserts that Schofield's claim 99 is anticipated by U.S. Patent 5,537,003 to
19 Bechtel et al., and also would have been obvious over the combined teachings of U.S. Patent
20 5,845,000 to Breed et al. and U.S. Patent 5,537,003 to Bechtel et al.

21 In connection with Stam's Motion 4, we have already determined that Schofield's claim
22 99 is unpatentable under 35 U.S.C. § 112, first paragraph, for lack of written description in the
23 specification. Accordingly, we do not reach and it is not necessary to decide Stam's Motion 10.

24 Stam's Motion 10 is dismissed.

K. Schofield's Motion 1 alleging unpatentability of Stam's claims 36-40 for prohibited broadening under 35 U.S.C. § 305

In pertinent part, 35 U.S.C. § 305 which pertains to the conduct of reexamination proceedings states: "No proposed amended or new claim enlarging the scope of a claim of the patent will be permitted in a reexamination proceeding under this chapter."³ In Motion 1, Schofield asserts that Stam's patent claims 36-40 were broadened during the reexamination proceeding, in violation of the prohibition expressly provided in 35 U.S.C. § 305.

Claims 37, 38 and 40 each depend from claim 36, and claim 38 depends from claim 39.

As originally issued, claim 36 reads as follows:

36. A control system for automatically controlling the state of the head lamps of a controlled vehicle, the control system comprising:
- an optical system for imaging external sources of light within a predetermined field of view, the optical system including an image array sensor and two or more lenses, each configured to image said predetermined field of view onto two or more corresponding portions of said array; and
 - an image processing system for processing images from said optical system and providing a control signal for controlling the head lamps as a function of the relative output of the pixels imaging said external sources of light.

During the reexamination proceeding, Stam amended claim 36 to delete the text ", each" immediately following and modifying the term "two or more lenses." As amended, the patentability of modified claim 36 was confirmed in the reexamination certificate and reads as follows, with the deleted text shown within brackets [] and emphasized in bold:

36. A control system for automatically controlling the state of the head lamps of a controlled vehicle, the control system comprising:

³ Stam's involved patent was the subject of reexamination in Reexamination 90/005,439, which resulted in the issuance of Reexamination Certificate 5,837,994 C1 on October 16, 2001.

1 an optical system for imaging external sources of light within a
2 predetermined field of view, the optical system including an image
3 array sensor and two or more lenses[, each] configured to image
4 said predetermined field of view onto two or more corresponding
5 portions of said array; and
6

7 an image processing system for processing images from said
8 optical system and providing a control signal for controlling the
9 head lamps as a function of the relative output of the pixels
10 imaging said external sources of light.
11

12 Schofield's Motion 1 is well presented and supported by the record. We reject only the
13 argument (Reply 1, lines 8-17) that by filing claims identical to claims 36-40 in a separate
14 application which is not a reexamination proceeding Stam has conceded that Schofield's Motion
15 1 has merit. Stam's effort associated with a separate application merely represents its own
16 perceived recourse if we were to grant Schofield's Motion 1.⁴ We find merit in all the other
17 reasons and rationale stated and discussed in Schofield's motion and reply.

18 Except for the argument on concession by Stam, which we reject, we find all the facts
19 presented by Schofield in Motion 1 and reach the same legal conclusions on the same reasoning
20 presented by Schofield in Motion 1. We include here additional findings, conclusions, and
21 analysis related to the testimony of Dr. Bedabrata Pain (Exhibit 2038) on which Stam's
22 opposition relies.

23 Referring to Schofield's observation that the "each" term in originally issued claim 36
24 and modifying two or more lenses requires each of the two or more lenses, e.g., a first lens and a
25 second lens, to image said predetermined field of view onto two or more corresponding portions
26 of the image array sensor, Dr. Pain states (Exhibit 2038, paragraph 5):

27 In my opinion, this proposed interpretation system violates a basic principle of
28 image formation – a single lens creates a single image of a given object. In my
29 opinion one of ordinary skill in the art would consider the cited passage from
30 Stam '994 Patent claim 36 to describe a system that allows a first lens imaging the

⁴ Whether these same claims are patentable in the separate application is not a matter before us and we express no view in that regard.

1 field of view onto one corresponding portion of the image array sensor; and a
2 second lens imaging the field of view onto one corresponding portion of the image
3 array sensor. [Emphasis in original]
4

5 The testimony is misplaced, as it is based on the mistaken premise that Schofield's observation
6 with regard to originally patented claim 36 is that it requires the creation by each lens of two
7 complete images of the field of view, one in each portion of the image array sensor. Schofield
8 nowhere made such a representation. Rather, Schofield referred to a first lens imaging the field
9 of view onto two or more portions of the arrays sensor and a second lens imaging the field of
10 view onto two or more portions of the image array sensor, just as the claim indicates. Each lens
11 creates only one image of the field of view, albeit using two portions of the array sensor.

12 Furthermore, there is nothing open or subject to interpretation about the recitation in
13 originally issued claim 36 that each lens images the predetermined field of view onto two or
14 more corresponding portions of the image array sensor. The term "two or more" does not mean
15 "one" and is not satisfied by "one" unless there is a special definition in the specification to that
16 effect or if Stam establishes that in the pertinent art "two or more" has a well recognized meaning
17 that encompasses "one," neither of which is the case on this record. Dr. Pain has not given
18 testimony to the effect that in the pertinent art it is well recognized that the numeral "2" means
19 the numeral "1" or the numeral "2" means either the numeral "1" or the numeral "2." Therefore,
20 the claim says what it says and it is what it is, even if Dr. Pain does not believe in its principle of
21 operation and regardless of whether Dr. Pain is correct in his view of how imaging processes
22 work. Dr. Pain has not just interpreted original patent claim 36 to determine what it says but
23 reformed and changed it according to a different idea as to how imaging systems should work.

24 Even if Dr. Pain is correct in his idea of how imaging systems work, he has not allowed
25 for the existence of a mistake in original patent claim 36. If a mistake was made, the claim as
26 originally issued does not have to make sense according to some principle familiar to Dr. Pain or
27 one with ordinary skill in the art, and is not necessarily supported by the specification or file

1 history. The claimed invention may be inoperative or not described in the specification but must
2 still be recognized for what it is.

3 For reasons discussed above, Schofield's Motion 1 is **granted**.

4 Because all of Stam's claims corresponding to Count 1 are unpatentable, we exercise our
5 discretion to not proceed to priority determination on Count 1 where one party has no patentable
6 claim drawn to the subject matter of the count. Accordingly, neither party is authorized to file a
7 priority motion with respect to Count 1.

8 L. Schofield's Motion 2 to be accorded benefit of
9 Application 08/478,093, filed June 7, 1995, for Count 1

10 In connection with Schofield's Motion 1, we have decided that all of Stam's claims
11 corresponding to Count 1, i.e., Stam's claims 36-40, are unpatentable. Also, because Stam has
12 no patentable claim corresponding to Count 1, we have decided to not authorize any priority
13 motion in this case from either party with respect to the subject matter of Count 1. Therefore,
14 Schofield's Motion 2 to be accorded benefit to an earlier filed application for purposes of priority
15 with respect to Count 1 is without significance and need not be decided.

16 Schofield's Motion 2 is **dismissed**.

17 M. Schofield's Motion 3 to be accorded benefit of
18 Application 08/478,093, filed June 7, 1995, for Count 2

19 Through Motion 3, Schofield seeks to be accorded benefit of the filing date of
20 Application 08/478,093 (hereinafter " '093 Benefit Application"), filed June 7, 1995, now Patent
21 5,877,897. As we discussed earlier, according benefit means the benefit application provides a
22 proper constructive reduction to practice under 35 U.S.C. § 102(g)(1), 37 CFR § 41.201, and a
23 party is entitled to the filing date of the benefit application for priority purposes. The disclosure
24 of the benefit application need only support one embodiment within the scope of the count. Weil

1 v. Fritz, 572 F.2d at 865-66 n.17, 196 USPQ at 608 n.17 (CCPA 1978); Hunt v. Treppschuh,
2 523 F.2d at 1389, 187 USPQ at 429.

3 The specification and drawings of the '093 Benefit Application were not amended during
4 prosecution and correspond to the specification and drawings of issued Patent 5,877,897
5 (Schofield's Fact Paragraph 9, admitted by Stam). Therefore, we refer to parts of the '093
6 Benefit Application by reference to the page or column numbers of Patent 5,877,897 (Exhibit
7 1013).

8 The '093 Benefit Application has an extensive disclosure and has many aspects directed
9 to a multiplicity of objectives, as is described in the Summary of the Invention section of the
10 specification (Exhibit 1013, columns 4-7). Relevant to this motion is the objective identified on
11 column 6, line 62 through column 7, line 4, one among a plethora of other different objectives
12 not involving control of the vehicle's lighting system:

13 According to another aspect the present [invention] relates to a vehicle
14 lighting control system **for controlling a vehicle lighting system** in an
15 automotive vehicle comprising a photosensor array means for sensing light levels
16 in a forward field of view and generating a set of photosensor array signals, and a
17 signal processing means coupled to said photosensor array means for receiving
18 said set of photosensor array signals and **determining from said set of**
19 **photosensor array signals at least one control signal for controlling said**
20 **vehicle lighting system.** (Emphasis added.)
21

22 A review of the specification of the '093 Benefit Application readily reveals that embodiments of
23 the invention achieving other objectives not involving control of the vehicle lighting system are
24 disclosed and described first, followed by embodiments of the invention for controlling the
25 vehicle's lighting system whose description are largely located from column 33, line 24 through
26 column 37, line 9. Moreover, for the vehicle lighting control embodiment, the '093 Benefit
27 Application does not reiterate all over again certain technical details that are shared with the
28 earlier described embodiments having to do with other objectives. In that connection, note the

1 following disclosure in column 34, lines 7-27 of the '093 Benefit Application, cited in
2 Schofield's Opposition Fact ¶ 18:

3 The methods defined for determining the change-limited background light
4 signal B may also be used to determine a change-limited background forward light
5 signal B that may be used to control the vehicle lighting system. Also, the
6 methods previously described for determining and identifying peak light levels
7 may generally be used to determine and identify whether there are other headlights
8 and taillights in the driver's forward field of view. The logic and control circuit
9 34 used this information to control automatically the vehicle headlights (low
10 beam, mid beam and high beam modes) so as to limit the annoyance or
11 debilitation of other vehicle drivers forward of the vehicle. The method for
12 processing the forward field of view image is the same as that shown through step
13 S140 in the flow chart of FIG. 7A, and is generally the same as to steps S150 and
14 S160 as detailed in the flow chart FIG. 8A, except that steps S155, S156 and S162
15 are excluded. FIGs. 13A, 13B, 13C and 13D are the flow charts that show the
16 methods used by the logic and control circuit to determine the appropriate vehicle
17 lighting configuration and to control the vehicle lighting system.

18
19 As defined in column 33, lines 52-60, the vehicle's lighting configuration is represented by the
20 controlled states of headlight low beam mode switch 29a, mid beam mode switch 29b, high beam
21 mode switch 29c, vehicle running light switch 31, and tail lights and side light switches 35.

22 To satisfy the feature in claim 94 of a control system for automatically controlling the
23 high beam state of the head lamps of a controlled vehicle, Schofield's Fact ¶ 26 cites to column
24 6, line 62 through column 7, line 4, column 33, lines 48-60, and column 34, lines 10-18 of the
25 '093 Benefit Application as meeting the requirement. Schofield's Fact 26 is admitted by Stam.

26 To satisfy the feature in claim 94 of an optical system for imaging external sources of
27 light within a predetermined field of view, Schofield's Fact ¶ 28 cites to column 33, lines 29-32,
28 and column 13, lines 37-44 of the '093 Benefit Application as meeting the requirement.
29 Schofield's Fact ¶ 28 is admitted by Stam.

30 To satisfy the feature in claim 94 of the optical system imaging the external sources of
31 light onto an image sensor containing a plurality of pixels, Schofield's Fact ¶ 29 cites to column
32 9, lines 24-26, column 13, lines 42-44, column 15, lines 13-16, column 15, lines 37-43. Figure 5,

1 and column 33, lines 34-47 as meeting the requirement. Schofield's Fact ¶ 29 is admitted by
2 Stam.

3 To satisfy the feature in claim 94 of the optical system being configured to selectively
4 transmit one or more predetermined spectral bands of light, Schofield Fact ¶ 30 cites to various
5 different portions of the '093 Benefit Application, including column 15, line 58 through column
6 16, line 20, and Figures 11A and 11B. Stam denies Schofield Fact ¶ 30, and states (Opposition
7 Page 2) that the description from column 15, line 58 through column 16, line 20 of the '093
8 Benefit Application, as well as Figures 11A and 11B, relate to the "spectral response" of the
9 imaging array and thus do not describe selective "transmission" of different spectral bands of
10 light as that term is used in the Stam patent, from which the claim term is derived.

11 Stam's position is misplaced. First, Schofield's claim 94 is broader than Stam's claims in
12 that its recitation of "one or more predetermined spectral bands of light" can be easily met by
13 merely a single spectral band of light, such as unfiltered visible light. Secondly, 37 CFR
14 § 200(b) explicitly provides: "A claim shall be given its broadest reasonable construction in light
15 of the specification of the application or patent in which it appears." Note also the following text
16 in Federal Register, Volume 69, No. 155, August 12, 2004, at 49968: "Section 41.200(b) [Title
17 37, Code of Federal Regulations] continues the practice under Rule 633(a) of looking at the
18 applicant's specification to determine the meaning of a copied claim, not the specification from
19 which the claim was copied." Thus, Stam's specification does not determine the meaning of
20 terms in Schofield's application. In any event, Stam has not shown that the term "transmission"
21 has been specially defined in either party's specification so as to have a meaning different from
22 that it has in ordinary English usage.

23 While it is true that spectral responsiveness of an image sensor does not necessarily mean
24 any light is actually transmitted to the image sensor, the disclosure of the '093 Benefit
25 Application indicates that it is, and that at least one embodiment the light transmitted to the

1 image sensor is just plain unfiltered visible light. In column 34, lines 18-20 of the '093 Benefit
2 Application, a part cited by Schofield in numerous instances throughout the motion, it is stated:
3 **"The method for processing the forward field of view image is the same as that shown**
4 **through step S140 in the flow chart of FIG. 7A, . . ."** In Figure 7, the first three boxes of the
5 flow chart, in sequence of succession, are: "Light incident on lens" (S101); "Image focused By
6 Lens Onto Photosensor Array" (S110); and "Generate Photosensor Array Control Signals"
7 (S120). And in the description of that Figure, the '093 Benefit Application states (column 21,
8 lines 14-18):

9 In step 101 of FIG. 7, light information seen rearwardly of the rearview
10 mirror 1 is incident on the lens 30. In step S110, light passing through the lens 30
11 is refracted such that the light information is imaged or focused onto the
12 photosensitive surface of the photosensor array 32.
13

14 Based on the foregoing, we find that for an embodiment of the invention that controls vehicle
15 headlights, the '093 Benefit Application discloses selective transmission of unfiltered visible
16 light from the driver's forward field of view onto photosensor array 32. That finding is
17 consistent with the testimony in ¶¶ 16 and 17 of Dr. Niall Lynam's declaration relied on by
18 Schofield.

19 To satisfy the feature in claim 94 of the optical system being configured to image light
20 within each predetermined spectral band onto particular portions of the image sensor, Schofield
21 Fact ¶ 31 cites to various different portions of the '093 Benefit Application which introduces and
22 discusses details of photosensor array 32, including Figures 4A and 4B and column 15, lines 13-
23 36. Specifically, photosensor array 32, as shown in Figure 4A, "generally comprises a plurality
24 of photosensor elements 32a arranged in a photosensor array PA(N,M) having N rows of M
25 columns" (column 15, lines 13-16). Figure 4B illustrates several sub-array portions S(X), where
26 $X = 0, 1, 2, \dots$ etc., within the overall array PA(N,M), each of which defines a separate image
27 zone (column 15, lines 21-36). Schofield's position is that each such zone or sub-array S(X)

1 constitutes a particular portion of the photosensor array, onto which the predetermined field of
2 view has been imaged. We agree.

3 Stam denies Schofield Fact ¶ 31, and argues (Opposition Page 3) that the description
4 from column 15, lines 13-36 of the '093 Benefit Application, as well as Figures 4A and 4B,
5 pertain to an array used for controlling mirrors and does not relate to imaging light within
6 spectral bands onto particular portions of the image sensor. The argument is misplaced and thus
7 rejected.

8 While the embodiment most directly described by the description in column 15, lines 13-
9 36 has to do with controlling of mirror or mirrors, it cannot be reasonably disputed that the
10 described image sensor configuration and constitution also applies to the later disclosed
11 embodiment beginning in column 33 and extending through column 36 and making use of the
12 image sensor for controlling vehicle lighting including the low, mid, and high beam state of a
13 vehicle. The disclosure for the vehicle lighting control aspect of the invention does not introduce
14 a new photosensor array for use in that embodiment, but refers to the already introduced
15 photosensor array 32, Array PA(N,M), and the already introduced sub-arrays S(X) within Array
16 PA(N,M). Only the location or number of the particular portions, or image zones S(X), within
17 the photosensor array 32 or PA(N,M) would vary depending on the needs of the respective
18 control function being implemented. Moreover, because the image of the predetermined field of
19 view is imaged onto a collection of different image zones S(X), where x is, 1, 2, 3, . .etc., it also
20 is not subject to reasonable dispute that the optical system images visible light, a predetermined
21 spectral band, onto particular portions, i.e., separate zones, of the image sensor.

22 For instance, in column 34, lines 43-45, the '093 Benefit Application identifies, for the
23 vehicle lighting control embodiment, a mid zone and further states (column 34, lines 46-50):

24 This mid zone or zone of interest represents an appropriate area of the forward
25 field of view image, in which the vehicle headlights may be set to their mid beam

1 mode if there are no other vehicles as indicated by other vehicle light sources
2 (headlights or taillights) within the mid zone.
3

4 And in column 34, lines 57-60, the '093 Benefit Application identifies, for the vehicle lighting
5 control embodiment, a high zone and states:

6 The high zone represents an appropriate area of the forward field of view image,
7 in which the vehicle headlights may be set to their high beam mode if there are no
8 other vehicle light sources within the high zone.
9

10 Thus, there are at least two particular portions within the photosensor array, one for
11 imaging a corresponding the mid zone in the forward field of view, and the other for imaging a
12 corresponding high zone in the forward field of view. That satisfies the claim requirement of the
13 system being configured to image light within each predetermined spectral band, the visible light
14 spectral band in this case, onto particular portions of the image sensor.

15 To satisfy the feature in claim 94 of providing a control signal for controlling the high
16 beam state of the headlamps as a function of the output of one or more pixels within one of said
17 portions relative to the output of other pixels within the same portion, Schofield Fact ¶ 35 cites to
18 various portions of the '093 Benefit Application, including that which describes that the peak
19 light level for each of the zones or sub-arrays S(X) is determined and those which describe that
20 depending on the detected background light level and whether there are no other vehicle light
21 sources in a particular zone of interest, the vehicle lights may be set to a corresponding mid or
22 high beam mode. Schofield's Fact ¶ 35 is admitted by Stam. Schofield also points out that the
23 peak output values are used to determine and identify whether there are other headlights or
24 taillights in the forward field of view. In that connection, column 34, lines 10-14 states:

25 Also, the methods previously described for determining and identifying peak light
26 levels may generally be used to determine and identify whether there are other
27 headlights and taillights in the driver's forward field of view.
28

29 It is not in dispute that determining peak value in a zone involves identification of the outputs of
30 some pixels in the zone relative to identification of the outputs of other pixels in the zone.

1 All of the arguments made by Stam in its opposition are without merit.

2 Stam argues that the sub-arrays $S(X)$ and the array $PA(N,M)$ of Schofield's '093 benefit
3 Application image different parts of the forward field of view, whereas in Stam's involved
4 patent, each portion of the array images the same thing in the field of view. Also, Stam argues
5 that the array and sub-arrays of Schofield's '093 Benefit Application are not subject to
6 differential filtering, as are the portions of the array of the Stam patent. These arguments are
7 rejected. Schofield is free to choose either alternative of the count as that for which the '093
8 Benefit Application disclosure would anticipate under 35 U.S.C. § 102(g), and Schofield has
9 selected its own claim 94. There certainly is no requirement in Schofield's claim 94 that the
10 particular portions within the image sensor must image identical parts within the forward field of
11 view. The optical system of claim 94 need only image external sources of light in a
12 predetermined field of view onto an image sensor, transmit one or more predetermined spectral
13 bands of light, and image light in each predetermined spectral band onto particular portions of
14 the image sensor. It is sufficient to meet these requirements of Schofield's claim 94 if unfiltered
15 visible light from the driver's forward field of view is imaged onto more than one zone or portion
16 of the image sensor, as it is in the disclosure of the '093 Benefit Application.

17 Furthermore, even Stam's claim 44, the other alternative of the count, does not
18 necessarily require the different predetermined blocks in the image sensor to image identical
19 parts within the predetermined field of view even if Stam's specification discloses such an
20 embodiment. There certainly is no requirement in Schofield's claim 94 that the particular
21 portions within the image sensor must image identical parts within the forward field of view. As
22 for the argument about differential filtering, it is without merit because Schofield's claim 94 is
23 broad and can be satisfied by transmission of one, not two or more, spectral band of light.

24 Stam argues that there is no evidence that Dr. Lynam reviewed the Stam patent in
25 forming his opinions. But the Stam patent has nothing to do with determining whether the

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1 Schofield '093 Benefit Application anticipates Schofield's claim 94 under 35 U.S.C. § 102(g).

2 Accordingly, that argument is misplaced and without merit.

3 Stam argues that it is well settled that where there is ambiguity in a count, that ambiguity
4 is to be resolved by referring to the specification from which it originated, citing Genentech, Inc.
5 v. Chiron Corp., 112 F.3d 495, 500, 42 USPQ2d 1608, 1612 (Fed. Cir. 1997), and In re Baxter,
6 656 F.2d 679, 686, 210 USPQ 795, 802 (CCPA 1981). That line of authority, however, has been
7 over taken by subsequent promulgation of new interference regulations. We have already noted
8 37 CFR § 200(b) which explicitly provides: "A claim shall be given its broadest reasonable
9 construction in light of the specification of the application or patent in which it appears," and the
10 Federal Register, Volume 69, No. 155, August 12, 2004, at 49968: "Section 41.200(b) [Title 37,
11 Code of Federal Regulations] continues the practice under Rule 633(a) of looking at the
12 applicant's specification to determine the meaning of a copied claim, not the specification from
13 which the claim was copied." Any ambiguity in Schofield's claim 94 would be properly resolved
14 by resort to the Schofield specification, not the Stam patent. In any event, Stam has not shown
15 that there is an ambiguity in Schofield's claim 94.

16 For all of the foregoing reasons, Schofield's Motion 3 is **granted**.

17 N. Schofield's Motion 4 to add
18 proposed new claims 100 and 101

19
20 Schofield's Motion 4 is contingent upon the granting of Stam's Motion 1. Because
21 Stam's Motion 1 has been denied, the contingency has not materialized. Accordingly,
22 Schofield's Motion 4 is **dismissed**.

O. Schofield's Motion 5 to add
proposed new claims 102 and 103

Schofield's Motion 5 is contingent upon the granting of Stam's Motion 2. Because Stam's Motion 2 has been denied, the contingency has not materialized. Accordingly, Schofield's Motion 5 is dismissed.

/Jameson Lee/)	
JAMESON LEE)	
Administrative Patent Judge)	
)	BOARD OF PATENT
)	APPEALS
)	AND
/Sally C. Medley/)	INTERFERENCES
SALLY C. MEDLEY)	
Administrative Patent Judge)	

Martin, Administrative Patent Judge, concurring in part and dissenting in part

For the following reasons, unlike my colleagues I would hold that Schofield's claim 99 (the sole Schofield claim which corresponds to Count 3) has written description support in Schofield's involved application 09/441,341 ('341 application) and would therefore deny Stam Motion 4. In view of my denial of that motion, I would also reach the merits of several other motions whose merits the majority found it unnecessary to consider: (a) Stam Motion 7, which seeks to deny Schofield the benefit of Application 08/023,918 (filed February 26, 1993) with respect to Count 3; and (b) Stam Motion 10, which asserts that claim 99 is anticipated by or would have been obvious over the prior art. I conclude that claim 99 is anticipated by the prior art.

Stam Motion 4

The majority holds that Schofield's involved '341 application fails to disclose an optical system which is "configured to not image light in the infrared region of the spectrum emitted by said light sources," as recited in Schofield claim 99.

Each curve shown in Figures 8a to 8c of the '341 application shows the wavelengths which can be passed (in varying degrees) by the respective filter. Thus, the red filter represented by the rightmost curve in Figure 8a passes visible wavelengths between about 540 nm and about 700 nm and excludes all wavelengths above and below that range, including the near infrared (NIR) wavelengths identified as having wavelengths equal to or greater than about 765 nm. In contrast, the filter represented by the rightmost curve in Figure 8b passes wavelengths between about 580 nm and about 800 nm, which include some near infrared wavelengths. Similarly, the filter represented by the rightmost curve in Figure 8c passes wavelengths between about 520 nm and about 825 nm and thus includes some near infrared wavelengths. The ability of the Figure 8b filtering system to pass infrared wavelengths is specifically mentioned in the specification as a difference from the Figure 8a filtering system:

In the illustrated embodiment, spectral filtering is carried out in a manner which exposes each photosensing element in the photosensor array to a band of light falling within one of the primary ranges of the visible spectrum, namely red, green, or blue as illustrated in Fig. 8a. However, different bands in the frequency spectrum may be utilized including not only visible spectrum bands but invisible spectrum bands including infrared and ultraviolet bands as illustrated in Fig. 8b.

'341 Specification at 10, ll. 23-28. In my view, the foregoing facts adequately support the testimony by Dr. Lynam, Schofield's expert witness, that "[a] person of ordinary skill in the art would interpret Figure 8a of the '341 application as showing spectral filtering that blocks light in the infrared spectrum." Third Declaration of Dr. Niall Lynam (Exh. 1022) at 19, para. 44.

1 The arguments to the contrary made by Stam's expert witness, Dr. Pain, are not
2 persuasive. The first is that the '341 application mentions detecting infrared light but not
3 blocking it. First Declaration of Dr. Bedabrata Pain (Exh. 2018) ("Pain Decl.") at 7, para. 24.
4 Although the application does not state that the Figure 8a filtering system blocks infrared, that
5 function, as explained above, is readily apparent from Figures 8a and 8b and the description
6 thereof.

7 While Dr. Pain next notes, correctly, that the '341 application fails to attribute any
8 advantage to be gained from filtering out infrared (Pain Decl. at 7, para. 24), the absence of any
9 stated advantage is immaterial to the question of whether the application describes that feature.

10 Dr. Pain's testimony that Figures 8a to 8c are incomprehensible because the specification
11 fails to explain the meanings of the relative values on the Y-axis (Pain Decl. at 7-8, para. 25) is
12 unconvincing for the reasons given by the majority.

13 Finally, Dr. Pain testified as follows:

- 14 26. Moreover, the shape of the spectral curves shown in Fig. 8a cannot be
15 realized in practice. For instance, the curve representing the red filter cuts
16 off abruptly at the short wavelength region (around 540 nm). Such abrupt
17 filter characteristics cannot be realized in practice. The same is true for
18 the green filter as well. Therefore, the spectral characteristics shown in
19 Figure 8a are ambiguous at best.

20 Id. at 8, para. 26. This criticism is directed to the fact whereas the right (i.e., higher wavelength)
21 end portion of the red filter curve gradually approaches zero as the wavelength increases to
22 700 nm, the left end portion of the red filter curve and both end portions of the green filter curve
23 abruptly drop to zero. Dr. Pain's assertion that such abrupt filter cutoffs are not achievable in
24 practice seems reasonable on its face. However, that error in the filter curves would have been
25 recognized by persons having ordinary skill in the art and would not have detracted from the
26 application's teaching of using a combination of red, green, and blue filters which, as shown in
27 Figure 8a, do not transmit infrared (or ultraviolet) wavelengths.
28

1 Stam Motion 7

2 Although I am of the opinion that Schofield claim 99 is anticipated by the Bechtel patent
3 for the reasons given below in the discussion of Stam Motion 10 and thus agree with the majority
4 that priority motions should not be authorized with respect to Count 3, I am considering Stam
5 Motion 7 because the parties have treated the question of whether the Bechtel and Breed patents
6 are prior art as to claim 99 as turning on our decision on Stam Motion 7. As in the majority
7 opinion, my references to the specification of the '918 application are to the specification of
8 Stam Patent 5,550,677 ('677 patent).

9 Count 3 is the alternative combination of Schofield claim 99 and Stam claim 50, of which
10 claim 99 reads:

11 99. A control system for automatically controlling the high beam state
12 of the head lamps of a controlled vehicle comprising:

13 an optical system for imaging external sources of light within a
14 predetermined field of view onto an image array sensor, said optical system
15 configured to distinguish light sources which emit red light from those which emit
16 white light, said optical system further configured to not image light in the
17 infrared region of the spectrum emitted by said light sources, thereby increasing
18 the distinction between said red-emitting sources and said white-emitting sources;
19 and
20

21 an image processing system for processing images from said optical
22 system and providing a control signal for controlling the high beam state of the
23 head lamps.
24

25 (Emphasis added.)

26 Most of the disclosure of the '918 application is directed to a system for automatically
27 controlling the reflectance values of various automobile mirrors in response to light levels
28 detected by a rearwardly directed photosensor 2 (including lens 30 and photosensor array 32)
29 mounted either behind (Fig. 1A) or adjacent to (Fig. 1B) the reflective surface area 1a of a
30 rearview mirror. The lens images three viewing zones onto the photosensor array. In the
31 embodiment depicted in Figure 3A, the three separate zones are: a center zone (generally

1 corresponding to the rear window), a left zone b (generally corresponding to the left side window
2 area), and a right zone c (generally corresponding to the right side window area). Col. 8, ll. 21-
3 33. The control circuitry averages the pixel values to calculate background light signals B_l and
4 B_r (col. 13, ll. 32-53) as well as a peak light signal $P(z)$ for each zone (col. 14, ll. 10-12), which
5 signals are used to control the reflectivity of the mirrors. Col. 14, l. 66 to col. 15, col. 8. The
6 background signal B_l may also be used to control the on/off switch (45 in Fig. 10) for the
7 vehicle's headlights and sidelights. Col. 18, ll. 53-59.

8 The motion correctly states at page 8 that the '918 application fails to disclose either of
9 the limitations underlined in claim 99 as reproduced above.⁵ Considering first the "infrared"
10 limitation, the only mention of infrared light in the specification appears in the following
11 paragraph, which discusses the material that covers lens 30 and photosensor array 32 when
12 located in the mirror surface area 1a: "[S]ince the preferred photosensor array 32 is responsive to
13 both visible light and near infrared, it is preferable to select a material which reflects a significant
14 proportion of visible light while being essentially transparent to infrared." '677 patent, col. 7,
15 ll. 11-14. This passage thus indicates a preference for an optical system which passes infrared
16 light instead of blocking it, as required by the claim 99 part of the count. While, on the other
17 hand, the description of the photosensor array as preferably being responsive to visible and
18 infrared suggests alternatively using a photosensor array that is responsive to visible light but not
19 to infrared, I am not persuaded that the artisan would have understood the application to be
20 disclosing the blocking of infrared when using such an array.

21 As for the other limitation underlined above, the '918 Application makes no mention of
22 red light whatsoever, let alone distinguishing red-emitting sources from white-emitting sources.

⁵ Stam's further contention that the application fails to disclose the function of controlling the "high beam state" of the head lamps was belatedly raised in the reply (at 3, in the denial of Schofield's Material Fact 25) and therefore will not be considered.

1 Schofield argues that this limitation is inherently satisfied by the thin, metal partially
2 reflective/partially transmissive layer described at column 6, line 60 to column 7, line 2 as
3 covering the opening to the lens and photosensor when they are located behind the reflective
4 surface 1a of the rear view mirror. Opposition at 7. This assertion is unpersuasive because it is
5 attorney argument unsupported by any evidence whatsoever, such as by testimony of an expert
6 witness. Meitzner v. Mindick, 549 F.2d 775, 782, 193 USPQ 17, 22 (CCPA). Furthermore,
7 assuming for the sake of argument that such a layer will inherently have a
8 reflectance/transmission characteristic that varies with wavelength, such a characteristic is not
9 enough to satisfy the claim language, which requires distinguishing between red-emitting and
10 white-emitting sources.

11 For the foregoing reasons, the claim 99 portion of Count 3 is not entitled to the
12 February 26, 1993, filing date of the '918 application, with the result that Schofield's earliest
13 benefit date for Count 3 is the March 25, 1996, filing date of Application 08/621,863.

14 Stam Motion 10

15 This motion asserts that Schofield claim 99 is (a) anticipated under 35 U.S.C. § 102 by
16 the Bechtel U.S. patent (filing date: April 8, 1994) and (b) would have been obvious under
17 § 103(a) over the Breed U.S. patent (filing date: June 7, 1995) in view of Bechtel. I would grant
18 this motion on the first ground and would not reach the second.

19 As noted by the majority, both parties seem to believe that our decision on Stam Motion 7
20 to deny Schofield the benefit of the filing date of the '918 application with respect to Count 3
21 will also determine whether that filing date is the effective filing date of Schofield claim 99 for
22 purposes of defining the applicable prior art. This position fails to recognize the difference
23 between determining the benefit date of a count and determining the effective filing date of a
24 claim. Whereas a count can be accorded the benefit an earlier application which provides 35
25 U.S.C. 112, first paragraph support for a single embodiment embraced by the count, Weil v.

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1 Fritz, 572 F.2d 856, 865-66 n.17, 196 USPQ 600, 608 n.17 (CCPA 1978), a claim is entitled to
2 the filing date of an earlier application only if it provides 35 U.S.C. 112, first paragraph support
3 for the entire scope of the claim. See Falkner v. Inglis, 448 F.3d 1357, 1363, 79 USPQ2d 1001,
4 1004 (Fed. Cir. 2006) (“The Board explained that 35 U.S.C. §§ 119 & 120 require benefit
5 applications to comply with § 112, first paragraph, with respect to the full scope of what a party
6 now claims, rather than with respect to merely one embodiment within the scope of the
7 interference count.”). However, for the same reasons that the ‘918 application fails to provide 35
8 U.S.C. § 112, first paragraph, written description support for an embodiment falling within the
9 part of Count 3 that is identical to Schofield claim 99, that application necessarily also fails to
10 provide 35 U.S.C. § 112, first paragraph support for that claim, with the result that Bechtel and
11 Breed are § 102(e) prior art with respect to that claim as of their actual filing dates.

12 Schofield also argues that Stam is estopped from arguing unpatentability of Schofield
13 claim 99 over Bechtel because Bechtel was of record during the ex parte prosecution of the Stam
14 application that matured into Stam’s involved patent, claim 50 of which is identical to Schofield
15 claim 99, citing In re Freeman, 30 F.3d 1459, 1465-66, 31 USPQ2d 1444, 1448-50. Opposition
16 at 9-13. This argument fails because Freeman’s issue preclusion doctrine applies only where the
17 earlier action was an inter partes action between two parties:

18 Issue preclusion is appropriate only if: (1) the issue is identical to one
19 decided in the first action; (2) the issue was actually litigated in the first action; (3)
20 resolution of the issue was essential to the final judgment in the first action; and
21 (4) plaintiff had a full and fair opportunity to litigate the issue in the first action.

22
23 Freeman, 30 F.3d at 1465, 31 USPQ2d at 1448.⁶

24 Schofield’s argument (Opposition at 12) that the examiner has already determined that
25 claim 50 is patentable over Bechtel fails to recognize that an examiner’s ex parte determination

⁶ The earlier action can be an interference proceeding. Schendel v. Curtis, 83 F.3d 1399, 1405-06, 38 USPQ2d 1743, 1748-49 (Fed. Cir. 1996).

1 of patentability is not binding on this board in a subsequent interference proceeding. Okada v.
2 Hitotsumachi 16 USPQ2d 1789, 1790-91 (Comm'r Pats. & Trademarks 1989) (citing Bloch v.
3 Sze, 458 F.2d 137, 173 USPQ 498 (CCPA 1972); Heymes v. Takaya, 6 USPQ2d 1448, 1454
4 (Bd. Pat. App. & Int.), reh'g denied, 6 USPQ2d 2055 (Bd. Pat. App. & Int. 1988)).

5 Turning now to the merits of the motion, Bechtel discloses a system which is responsive
6 to a light sensor 1 (Figs. 1a and 2) for controlling the headlamp dimmer (col. 22, l. 12 to col. 24,
7 l. 47). Light is directed to the light sensor by lens 2 and a rotary head 4, which in one
8 embodiment has a red reflecting filter mirror 4a and a cyan reflecting filter mirror 4b (col. 21,
9 ll. 34-41).⁷ The light sensor has an active area 1a (Fig. 3) about 0.090 inches on a side, which
10 gives the device an instantaneous field of view which spans about three and one quarter degrees
11 in both the horizontal and the vertical directions when used with a 40 millimeter focal length
12 lens. Col. 22, ll. 35-39. The function of the lens is to focus substantially all of the rays
13 emanating from a given viewing area in the field onto a corresponding area on the focal plane at
14 the sensor surface. Col. 22, ll. 39-42. Color determinations are made by comparing the readings
15 taken using red reflecting filter 4a with those of corresponding locations taken using cyan
16 reflecting filter 4b. Col. 22, ll. 5-9. The micro controller is programmed to respond to the lowest
17 light levels only when they are from red lights; this screens out many low intensity, non-red light
18 sources which would otherwise be confused with dim tail lamps and cause nuisance dimming
19 when operating at the very high sensitivities required to respond to the red tail lamps in time.
20 Col. 24, ll. 41-47. I understand this passage to mean that the system distinguishes re-emitting
21 light sources from white-emitting light sources. Bechtel also explains that the optical system
22 optionally may be designed to block infrared:

⁷ The system is also responsive to light received through light guide 3 (Fig. 2) to control the on/off function of the headlamps. Col. 24, l. 49 to col. 27, l. 50.

1 An infrared rejecting filter is optionally included as part of the sensor 1. It may be
2 added just in front of the light sensitive aperture of the purchased sensor,
3 purchased as part of the sensor, or the sensor may be of a type which is not
4 sensitive to infrared. As an option, the infrared filtering can be included as part of
5 the mirrors 4a and 4b. Rejection of the infrared is not absolutely necessary but
6 greatly enhances the ability to distinguish color. As a negative, much of the
7 energy detected by a silicon sensor is in the infrared part of the spectrum so the
8 already small sensor signals are even much smaller. These factors must be
9 balanced in the choice to reject the infrared wavelength component and in the
10 choice of filter pass bands for the optical visible range light also.

11
12 Bechtel, col. 22, ll. 50-63 (emphasis added). Regarding infrared light, Bechtel further explains:

13 If the infrared is not rejected and if the sensor has the same high response to
14 infrared that many silicon photo-diodes have, eighty percent or more of the
15 sensor's response to red tail lamps or even to headlamps may be due to the
16 infrared. To a driver, it makes no difference whether the lights from another
17 vehicle contain the strong infrared component or not so the effect of not reducing
18 the high infrared response is to cause a mismatch of the order of five to one in the
19 way that the control's sensor judges brightness of various light sources versus how
20 the drivers see them.

21
22 Id. at col. 36, l. 60 to col. 37, l. 3.

23 Bechtel therefore satisfies every limitation of claim 99. As a result, I find it unnecessary
24 to consider the rejection of claim 99 for obviousness over Breed in view of Bechtel.

25
26
27
28 /John C. Martin/)
29 JOHN C. MARTIN) BOARD OF PATENT
30 Administrative Patent Judge) APPEALS AND
31) INTERFERENCES
32)
33)

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